NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. XI. BOSTON, JANUARY, 1859. NO. 1.

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CALENDAR FOR JANUARY.

"THAT our sons may be as plants
Grown up in their youth;
That our daughters may be as corner-stones,
Polished after the similitude of a palace:
That our garners may be full,
Affording all manner of store:
That our sheep may bring forth thousands
And ten thousands in our streets:
That our oxen may be strong to labor;
That there be no breaking in, nor going out;
That there be no complaining in our streets.

Happy is that people that is in such a case."

Psalms 144, 12, *et seq.*

JANUARY, it may be thought, has little to do towards producing that happy state of things so forcibly expressed in the inimitable Psalms. But can it be so? Are not the snows and winds as much the messengers of God's will as fervent suns and refreshing rains?—Cannot June or July be omitted from the cluster of Months as well as January? It must be so. Then, welcome to thee, *January*, first-born of the Months, and though cold and blustering thou may be, warm hearts shall receive and cherish thee, as being as important as though heralded by soft showers, gentle airs, or the singing of birds. That point being settled, let us talk a little about what naturally presses upon the mind at this season of the year.

In wishing "A Happy New Year" to our readers, we know not how better to improve the occasion, than by a few natural reflections.

Time and opportunities passed, cannot be recalled. The only use we can now make of the past year, is to hold it up to the mind's eye, as a beacon, to warn us against its errors and its follies, and encourage us to imitate its bright examples.

Dr. Kane, in the Journal of his Arctic Expedition, relates, that, on one occasion, the brig in which he sailed, being carried along irresistibly by the floating ice, was borne near an immense iceberg, which seemed to be stationary, and against which the seamen were afraid of being dashed.

As they approached nearer, it occurred to them, that by making fast the brig to this leviathan, they might obtain safe anchorage and secure themselves against impending danger. They soon found, however, that they were still moving forward,—that the iceberg itself was carried along by the current.

So it is with the great stream of time. It sweeps everything before it, and is hurrying us all, young and old, rich and poor, learned and unlearned, bond and free, all, onward to the great ocean of eternity. We think to stay ourselves by making fast,—one to his farm, another to his merchandise,—one seeks anchorage in listless ease, another in luxurious dissipation,—a third thinks to rise above the current on the popular breeze, and thus escape,—while a fourth labors to erect a golden tower, to which his barque may be made fast. But all in vain! Editors, subscribers and readers, have all been hurried along, through another revolution of time, and now, willing or unwilling, they are ushered into the vestibule of a *New Year* numbered *Eighteen Hundred and Fifty-Nine.*

We may as well now make a virtue of our necessity, and become reconciled to the idea of being carried irresistibly down the subtle stream of life, by the ceaseless "floe," and improve the experience of the past, by making the best possible

preparation in our power for the duties and dangers, the joys and sorrows, of the future.

But we need not be despondent. God rules among the nations of the earth. He has not led our forefathers from the despotism of Europe, to this wilderness, sustained them in their trials, in subduing the forests and the savages,—imparted to them wisdom to devise such a system of government as ours and given them ability and valor to defend it,—crowned the labor of their descendants with such success that this little one has become a great nation,—that this backwoods colony of but three million of inhabitants, has, in the short space of eighty-three years, so developed herself in all the elements of national greatness, as to be able now to compete with the proudest and most powerful nations of the old world,—as to do more to promote the arts of civilized life and diffuse the blessings of the gospel of peace than any other nation on the globe,—we do not believe, we say, that the Ruler of the universe would have thus signalized our nation, had He not other purposes to accomplish.

We may be punished and chastened, but the tree of liberty, which our forefathers planted, watered and defended with so much care and at so great sacrifice, will not be stricken down,—but will strike still deeper its roots, and extend still wider its branches, till a whole continent shall take shelter beneath its shade, and its leaves shall be for the healing of the nations.

To this end, the people, the yeomanry, the dwellers in the "rural districts," the readers of the *New England Farmer*, and their like, must realize that they are the legitimate rulers of the land, and act accordingly—must take the reins into their own hands, and by that conservative wisdom which has always been found in the masses engaged in rural life, guide on the nation to a state of civilization and power that has no parallel among all the republics or empires that have preceded it,—"when nations shall beat their swords into plow-shares, and their spears into pruning-hooks; when nation shall not lift up sword against nation, neither shall they learn war any more."

If we start upon the New Year with the determination to discharge every duty with fidelity and zeal, we shall soon find that *Home* is the rich treasury of earth, and that

> "There is a power to make each hour
> As sweet as Heaven designed it;
> Nor need we roam to bring it home,
> Though few there be that find it!
> *We seek too high for things close by,*
> And lose what nature found us;
> For life hath here no charm so dear
> As home and friends around us."

WORK FOR JANUARY.

A good farmer's work is never done; that is, he can always find profitable employment, no matter what the season may be, or whether suns shine or storms beat. And in this he ought to find one of his principal sources of comfort and contentment.

This is not always the case with the mechanic; he may possess energy, health and skill, and sometimes be unable to find an opportunity to employ them,—so that although he may command higher wages than the workman on the farm, it is quite often the case that the want of employment and the greater expenses for living to which he is generally subjected by his position, makes the average income of each more nearly equal than it is generally supposed to be. We have never yet known an instance where an active, healthy and skilful young farmer could not find profitable employment; but have often known such instances among mechanics—where they have travelled from place to place, and in the touching language of Burns,—

> "Begging leave to toil,"

while the meal and the oil were swiftly wasting away at home, with little prospect that they could be again supplied.

Is it not true, then, that the *certainty of employment* ought to constitute one of the chief sources of contentment to the farmer? And now, in *January*, it may be amidst sharp winds, drifting snows, or freezing nights and softening suns, of deep ruts and miry ways, or of smooth and glassy roads over which man and beast pass with an exhilarated delight,—there are duties to be performed just as important as were those in the flush and beauty of summer.

If the cattle have been well tended, they have again assumed the plumpness and good looks which they had when first taken from the grass. They have become acquainted with their master, and seem to understand what any motion means that he makes in their presence; their *ears*, as well as eyes, are ever watchful, as they move toward the sound of his voice, or the rustling of the hay, the chopping of the roots or the dash of meal into the feed-trough.

Who cannot see expressions of gratitude in the countenance of the patient ox or gentle cow, or hear them in the cheerful "whinner" of the noble horse, as he remembers their kind services and ministers to their daily wants?

> "Who abuseth his cattle, and starves them for meat,
> By carting or plowing his gain is not great;
> When he that with labor *can use them aright*,
> Hath gain to his comfort and cattle in plight."

The *Barn* should be kept neat in every respect —so that the cattle may lie upon clean litter,

and breathe pure air. See that no cracks let in a stream of cold air directly upon a cow or an ox while it is tied up and cannot get away from it.

The *Cellar* should be so tight as to prevent cold draughts from coming up under the stock as it is lying down at night, and also to prevent manure from freezing, so that it may be overhauled or carted out during the winter.

Give the *Horses* a few carrots at noon, and they will soon show you a sleek coat. Cover them with blankets for an hour or two when they return from work in a sweat.

Let the *Hogs* and store pigs have warm and dry sleeping rooms, if you mean to find a profit in them.

Feed the *Poultry* with a variety of food; boiled potatoes, mashed and mixed with cob meal; corn, oats, barley, scraps or bits of fresh meat, gravel or pounded oyster or clam shells. These, with a warm, sunny shelter, will please them so highly that they will yield you an abundance of excellent eggs.

Feed out roots daily to all the stock; to milch cows immediately after being milked in the morning; to young cattle, dry cows, horses and sheep, whenever it is most convenient. But if you have no roots—ah,—make up your mind that you *will have them* next year.

Those of you who are blest with plenty of wood, and can enjoy the luxury of good, cheerful wood fires, gleaming upon your hearths and throwing its ruddy light into the glad faces of your healthy and happy children, will need no suggestion of ours, perhaps, to prepare it in season, and never to make the wife anxious and unhappy by attempting to burn it in an unseasoned state.

There is one thing more, at least, appropriate to the Month of January, and well worth remembering, that

> "'Tis not in title nor in rank,
> 'Tis not in wealth, like Lon'on bank,
> To make us truly blest.
> If happiness have not her seat
> And centre in the breast—
> We may be wise, or rich, or great,
> But never can be blest."

Gross and Net Weight of Sheep.—A few years ago we ascertained the live and dead weight of a large number of sheep slaughtered for the tallow near this city, and found that the carcass weighed about *three-fifths* of the live weight. These were common sheep, affording only about twelve pounds of tallow. Had they been in better condition, they would have afforded a higher proportionate weight of carcass.

In England, with the coarse-wooled mutton sheep, fatted for the butcher, it is generally estimated that a stone live weight (14 lbs.) will give a stone dead weight (8 lbs.) The live weight (ascertained after the sheep have fasted for twelve hours) is divided by seven, and this gives the weight of the carcass in quarters. Thus a sheep weighing 140 lbs. alive, is estimated to weigh 20 lbs. per quarter. We have known whole flocks to exceed this estimate. The fatter the sheep, the greater the dead weight in proportion to the live weight.—*Genesee Farmer.*

EXPERIENCE WITH MUCK.

In the summer of 1855 I had an upland lot, preparing for wheat or rye, aad having no funds to spare for the purchase of guano, bone dust, &c., I concluded to try what could be done at home. With a team and man we commenced drawing muck from a pond, and in four days had one hundred loads on two acres of ground. The ground was again plowed, thus mixing the muck, and on the 15th of September was sown with wheat. It was harvested the following July, and when threshed and exhibited at the County Agricultural Fair, received the premium for being the best wheat exhibited. The next season the plot was sown with oats, and such a crop was never raised on the *old homestead*, and all without any other manure. This season we have put *eight hundred* loads on five acres, sown to wheat and rye, and expect to be able to give you and the farming community as good a report, if not better, from the crops next summer. In addition to the above, on the first lot, we this summer cut, per acre, three tons of as good timothy hay as was ever housed, and up to this present writing, the feed is good, and cows easily fill themselves from it daily. Let every farmer, who can, try an acre with muck, and he certainly will be repaid four-fold.—*American Agriculturist.*

Another Mowing Machine Wanted.—It may sound a little singular to those who know the number of patents granted to hear us say that another is wanted; and each particular patentee, we suppose, will hoot the idea that we now advance, when we assert that very much the larger portion of the farmers of the Eastern and Northern States are as yet unprovided with a machine suitable to their wants. There are thousands of farmers living in comfortable circumstances, that do not and should not keep but one horse, and yet the tendency of all mowing-machine inventors, with but the trifling exception, has been to cater for men who keep strong teams, such as can operate one of the heavy two-horse machines, only working half a day, and then changing for a fresh pair or else over-work a single pair. Now what we want, and it is what inventors should turn their attention to, is a compact, light one-horse mowing machine, that can be afforded at a price within reach of the large class who keep but one horse, yet who are under just as much necessity of using labor-saving machinery as the largest owners of broad fields. We cannot advise small farmers to buy large machines, because we do not believe it would be profitable for mowing-machine manufacturers to give them one suitable to their circumstances, which they could and would afford to buy.—*New York Tribune.*

THE GREAT FRENCH HENNERY.

With care and good management, no branch of domestic industry is more profitable than rearing poultry. Many persons have supposed that what is profitable on a small scale might be made still more so when carried on to a larger extent, but repeated experiments in this and other countries have proved this to be a mistake. The secret of the matter is, that hens cannot thrive and lay, without a considerable quantity of animal food. Where but a limited number of fowls are kept about the farm-yard, the natural supply of insects is sufficient to meet this demand, and hence, when attempts have been made to extend the business beyond this source of supply, they have not prospered. It will be seen from the following interesting account that Mons. de Sora, of France, has adopted a method that has proved completely successful by affording an artificial supply of this essential portion of food.

The French practical philosophers certainly know how to make the most of things. A Mons. de Sora has recently discovered the secret of making hens lay every day in the year, by feeding them on horse flesh. The fact that hens do not lay eggs in winter as well as in summer, is well known, and the simple reason appears to be that they do not get the supply of meat in winter which they obtain in the warm season for worms and insects.

M. de Sora was aware of all these facts, and living at the time upon an old diiapidated estate, a few miles from Paris, the acres having been bequeathed to him a few years previously—he set himself earnestly at the task of constructing a hennery, which should be productive twelve months in the year. He soon ascertained that a certain quantity of raw mince meat given regularly with the other feed, produced the desired result, and commencing only with some 300 female fowls, he found that they averaged, the first year, some twenty-five dozen eggs, each, in the 365 days. The past season he has wintered thus far, about 100,000 hens, and a fair proportion of male birds, with a close approximation to the the same results. During the spring, summer and autumn, they have the range of the estate, but always under surveillance. In the winter, their apartments are kept at an agreeable temperature; and, although they have mince meat rations the year round, yet the quantity is much increased during cold weather. They have free access to pure water, gravel and sand, and their combs are always red. To supply this great consumption of meat, M. de Sora has availed himself of the constant supply of superannuated and damaged horses, which can always be gathered from the stables of Paris and the suburbs. These useless animals are taken to an *abattoir* owned by M. de Sora himself, and there neatly and scientifically slaughtered. The blood is saved, clean and unmixed with offal. It is sold for purposes of the arts at a remunerative price. The skin goes to the tanner—the head, hoofs shanks, &c., to the glue maker and Prussia blue manufacturer; the larger bones form a cheap substitute for ivory with the button maker, while the remainder of the osseous structure is manufactured into ivory black, or used in the shape of bone dust for agricultural purposes. Even the marrow is preserved; and much of the fashionable and highly perfumed lip salve and pomade, was once inclosed within the leg bones of old horses. Uses are also found for the entrails—and in fact no portion of the beast is wasted.

The flesh is carefully dissected off the frame of course, and being cut into suitable proportions, it is run through a series of revolving knives, the apparatus being similar to a sausage machine on an immense scale, and is delivered in the shape of a homogeneous mass of mince meat, slightly seasoned, into casks, which are instantly headed up, and conveyed per railroad, to the egg plantation of M. de Sora.

The consumption of horses for this purpose, by M. de Sora, has been at the average rate of twenty-two per day for the last twelve months, and so perfectly economical and extensive are all his arrangements, that he is enabled to make a profit on the cost of the animals by the sale of the extraneous substances enumerated above—thus furnishing to himself the mince meat for less than nothing delivered at his hennery.

It has been ascertained that a slight addition of salt and ground black pepper to the mass, is beneficial to the fowls, yet M. de Sora does not depend upon these condiments alone to prevent fermentation and putrefaction, but has his store rooms so contrived as to be kept at a temperature just removed from the freezing point through all months of the year, so that the mince meat never becomes sour or offensive; the fowls eat it with avidity; they are ever in good condition, and they lay an egg almost daily, in all weathers, and in all seasons.

The sheds, offices, and other buildings, are built around a quadrangle, enclosing about twenty acres, the general feeding ground. This latter is subdivided by fences of open paling, so that only a limited number of fowls are allowed to herd together, and these are arranged in the different compartments according to age, no bird being allowed to exceed the duration of four years of life. At the end of the fourth year, they are placed in the fattening coops for about three weeks, fed entirely on crushed grain, and sent alive to Paris.

As one item alone in this immense business it may be mentioned that in the months of September, October and November last, M. de Sora sent nearly one thousand dozen of capons to the metropolis.

He never allows a hen to set!

The breeding rooms are warmed by steam, and the heat is kept up with remarkable uniformity to that evolved by the female fowl during the process of incubation, which is known to mark higher on the thermometer than at any other periods. A series of shelves, one above the other, form the nests, while blankets are spread over the eggs to exclude any accidental light. The hatched chicks are removed to the nursery each morning, and fresh eggs laid in to supply the place of empty shells. A constant succession of chickens are thus insured, and moreover the feathers are always free from vermin. Indeed a lousy fowl is unknown upon the premises.

M. de Sora permits the males and females to mingle freely at all seasons, and after a fair trial

of all the various breeds, has cleared his establishment of every shanghai, cochin china, or other outlandish fowl, breeding only from old-fashioned barn-yard chanticleers, and the feminines of the same species. He contends that the extra size of body and eggs pertaining to these foreign breeds can only be produced and sustained by extra food, while for capon raising the flesh is neither so delicate nor juicy as that of the native bird.

The manure produced in this French establishment is no small item, and since it forms the very best fertilizer for many descriptions of plants it is eagerly sought for at high prices by the market gardeners in the vicinity. The proprietor estimates the yield this year at about 100 cords. He employs nearly 100 persons in different departments, three-fourths of whom, however, are females. The sales of eggs during the past winter have averaged about 40,000 dozens per week, at the rate of six dozens for four francs, bringing the actual sales up to $5,000 in round numbers, for every seven days, or $260,000 per annum. The expenses of M. de Sora's hennery, including wages, interest, and a fair margin for repairs, &c., are in the neighborhood of $75,000, leaving a balance in his favor of $185,000 per year, almost as remunerative as Col. Fremont's Mariposa grant.—*Selected.*

For the New England Farmer.

REPORT OF THE COMMITTEE ON FRUIT

At the Agricultural Fair, Charlemont, Ms., Sept. 28.

There was on exhibition one small lot of pears. In traveling the county of Franklin, and all western Massachusetts, I have rarely seen a pear tree among the farmers. Fifty years ago there were large and heavily bearing pear trees in the eastern part of the State. Perchance I see a small tree, now in the hill towns, and in the Connecticut valley, loaded with delicious pears, and I exclaim, why did not the man who planted that tree, plant 20 at the same time! Well enriched, the pear is a sure bearer on the pear stock, preferred to the quince.

The plum and the cherry were not on show. They are even less common in this country than the pear. There are cherries, sweet and healthy, good bearers and growers, and long-lived shade trees that will flourish beautifully on our soil. Should not the cherry by cultivated?

Early in September, I was in the garden of the Rev. B. Foster, of Dummerston, Vt. There I saw plum trees loaded with fruit, perhaps 20 bushels, all of the largest and most delicious varieties. The trees, all small, were bending under their loads. Mr. F. has saved the fruit from the curculio by rapping the trees and killing the grub, beginning when the trees began to blossom. But he is feeling confidence in a compound applied to the tops of the trees with a garden syringe.

I noticed a tree loaded with plums in the garden of Dr. Clark, of Conway. He says, that in the spring he painted the body of the tree and the limbs as high as he could reach with soft soap and a brush.

Somebody, everybody in the hill country of Mass., has neglected his duty 20 years ago, and every year since—and to-day we are none the better for want of the pear, the plum and the cherry.

But the apple—every owner of land in these parts is bound by his home comforts, and as a good citizen, to cultivate some of the best apples. The climate, the soil, the profit, the comfort and the crop, in the valley of the Deerfield, as sure as in any place in the world, tempt the people to cultivate the apple.

You see these ledgy, hill-side pastures where the maple and chestnut and hickory grow. That is the soil for the apple. Such pastures, well set in good apples, are a better investment for your son, or for the sale of your farm, or for your own comfort, than any other investment you will make with any hundred dollars. In ten years, and for forty years afterwards, the pasture will produce ten times more profit than it can yield in feed for sheep and colts. Keep the bushes down, keep your scythe and stock out of it, consecrate the soil to the apple, and say, since God has made this rocky hill-side very good for the apple, so will I.

When the wife and the children, and the generation after, eat the delicious fruits which you have planted, they will bless the man who planted them—his grave will have a pleasant look to the children, for surely, as to good fruits, the nearest way to the hearts of children, younger or older, is down the throat.

In the east part of Charlemont along the roadside, there has been lately the trimming away of the hedge of 50 years, and the planting of many apple trees. I pass that way every week and repeat the thought:—"Surely, in this, Dr. Taylor has done a thing of true practical wisdom."

You may notice that Josiah Ballad's dooryard, east of the Charlemont church, is full of loaded peach trees. These were planted since the memory of any boy of 12 years old. I have lately passed these enchanting trees several times, and always repeat the same words. They are these: "*The bearing year never comes to him who cultivates no trees.*"

Travelling in any direction through western Massachusetts, one may notice the neglected orchards,—old orchards, well planted and well grown, untrimmed, ungrafted, unprofitable,—neglected, friendless. This remark, with some beautiful exceptions, extends into Vermont and New Hampshire. Travelling, this autumn, 100 miles of the valley of the Connecticut, I noticed not many young orchards. The best one which I have seen, and this is a very perfect one, is owned by Mr. Wells, at the point of the hill two miles west of Greenfield.

Last year, in Denmark, Iowa, I was walking with the Rev. Mr. Turner in his orchard. He had planted several hundred trees about 12 years before, on very rich soil, and they had grown rapidly, and were filled to excess with limbs. I said, your trees need much trimming. He replied, "The soil is rich and will sustain a heavy top." I said, the tops are already entirely too thick, and unless half their branches are cut away your fruit must be diminished in quantity and in size, and your trees will be decaying early. I said this with earnestness. With an expression like begging my sympathy, he replied,

"With my parish and my farm to look after, *I cannot do everything.*"

You go through western Massachusetts and you may hear the same excuse 20 years long repeated out of the tops of the abandoned apple trees, "Don't look at us, *our owner cannot do everything.*"

Plant apple trees, plant fruit trees, and do not neglect them as to the spade at the root and the knife at the top, while they are young. Remember, *the bearing year never comes to him who cultivates no trees.* A. FOSTER, *Chairman.*

For the New England Farmer.

LETTER FROM JUDGE FRENCH.

AGRICULTURE IN COOS COUNTY, N. H.

Lancaster, N. H., Nov., 1858.

FRIEND BROWN:—An American who desires to behold nature in some of her most sublime and picturesque aspects, need not incur the perils of a voyage across the sea, but let him first visit the "Crystal Hills" of New Hampshire. There are many things in the Granite State, little dreamed of in the philosophy of Boston people. It is not only a very good State to emigrate *from*, but it seems by the fashionable world to have been, of late, discovered to be an agreeable place of resort in summer, by way of escape from the heat and sinfulness of city life.

I am told that there were seven hundred strangers quartered at one time last summer in the little village of North Conway, below the Notch of the White Mountains, and a voice is still calling to them to come up higher.

A story is told of two fast young gentlemen from Boston, who wanted to go to the farthest bounds of civilization northward, so they took the railroad to Littleton, and there chartered a horse and wagon, for a drive into the wilderness. They carefully provided a flask of whisky and some crackers, so as not to incur danger of hunger or thirst, and came over to Lancaster, expecting to see the spot where civilization gradually tapered off into the wilds of Indian life, when suddenly they found themselves in front of the magnificent hotel, of which I will say enough to show that they who travel this way need not bring provisions or tents.

THE LANCASTER HOUSE.

This hotel, which is the largest in this State, a part three, and a part four stories high, was opened last summer for guests, by Mr. John Lindsay. The building itself, in this country of cheap lumber, cost about $18,000—and when fully arranged will accommodate one hundred and fifty guests. The rooms of the lower story are thirteen, those of the second story twelve, and those of third, eleven feet in height. The largest suite of rooms open into one spacious drawing-room of the dimensions of 54 by 24 feet. The house is 190 feet in length, a part being 64 and the rest 40 feet in width. The ample porticos, the lofty ceilings and the broad winding staircases, are arranged with an architectural skill, that gives the structure, both without and within, an effect really imposing. It is designed to accommodate those who in the hot season seek health or pleasure in these grand mountain regions, and it is difficult to say where art and nature have better combined for the enjoyment of leisure, than at this same spot, so far north that one looks back from it towards the southeast at the peak of Mount Washington. The distance from Boston is about two hundred miles, by Concord and Littleton, by railroad, and twenty miles stage, and two hundred and forty, including ten miles by stage, by Portland and the Grand Trunk Railway. For those who desire to pass through the Switzerland of America, the stage and lake steamer routes furnish a charming variety of wild scenery through the Notches of the Mountains.

AGRICULTURAL PRODUCTS.

The price of the best rock maple wood, which is from $1,25 to $1,50 per cord, and the price of potatoes at the starch factory, twenty cents a bushel, seem to indicate, that, notwithstanding our spacious hotel, we have advanced somewhat beyond the centre of population. Indeed, Lancaster is nearer to Montreal in Canada, than to Boston, and the Grand Trunk Railway, connecting Portland with the cities of the Canadas, is a great artery which sends out American blood with American principles and sympathies, through all the Provinces.

England cannot desire to hinder the fraternal relations of her provinces with the States, or she never would have assented to either of the two great steps towards fraternization which have recently been taken.

By one of them—the reciprocity treaty—agricultural products are carried free of duty between us and Canada, and so the custom-house mark of boundary is, in part, effaced. By the other, Canada has adopted the decimal currency, and "the almighty dollar" claims dominion there instead of the former *sovereign* of Great Britain.

But to return to the subject of agricultural products. This is part of the valley of the Connecticut, famous for its fertility, but as this portion of it is two hundred miles from Boston, its best market, farmers are obliged to send down their produce in a form not chargeable with too much freight. Butter and cheese, cattle and horses and wool, are the principal articles sold. Wheat is grown to some extent, but a great deal of flour is brought down from Canada to supply the deficiency. A great deal of valuable lumber

now finds its way from the wild regions farther North, down the river and the railways. Farmers are slowly coming into the idea that sheep afford mutton as well as wool, and begin to believe that some of the larger and coarser wooled breeds might be more profitable than the Merinos. Lambs, which a few years ago, sold for $1,50, readily bring twice that sum, and the greater weight of the fleeces of the coarser sheep almost, if not quite, compensates for the inferior quality of the wool.

I have alluded to the manufacture of starch, a sort of pioneer business, which leads the march of agriculture towards the backwoods. Let me tell the children who read the *Farmer*

HOW POTATO STARCH IS MADE.

The starch used in families for stiffening shirt collars and the like, is not made of potatoes but of wheat, usually. Potato starch is used in cotton factories, chiefly, for what is called sizing. The starch mill here is a low, cheap building, on a stream of water which carries the machinery. Mr. B. H. PLAISTED is the owner. As you enter, he will show you great heaps of potatoes, rough and dirty, as they were dug. His cellar holds six thousand bushels of them now. The California potato is a good deal raised, a very large, coarse potato, which yields a great crop, not very good for human food. As the farmers sell them for only twenty cents a bushel, they must get a good many from an acre, to pay for their labor. One man raised 1280 bushels this year from four acres, of the kind called Peachblows. The potatoes are first put into a long box into which water is constantly pouring, and are there stirred about with long, wooden fingers and thus washed. Then they go into another place where there is a huge grater, like a nutmeg grater, only *greater* by a good deal, and thus they are grated into a pulp. This pulp is carried along over five strainers, upon which streams of water are falling, and thus the starch is washed out and goes through the strainers, while the skins and coarser parts pass along. The starch seems to be all there is in potatoes of any value, for what is left is thrown into the river, and is thought here to be of very little use for cows, to which it is sometimes given. Next the starch and water that went through the strainers, are pumped into large vats or boxes, and there in a short time, the starch falls to the bottom, and the water is taken off the top by a syphon, and the starch, clean and white, is so solid that it can be shoveled up into heaps. Lastly, it is put on to wooden frames, in a hot room, heated with stoves and funnels, and there dried, and then put into bags and sold. About two hundred and forty bushels of potatoes of sixty pounds to the bushel, will make a ton of starch, which gives about a pound of starch from seven pounds of potatoes. The best and most mealy potatoes make the most starch, but farmers cannot afford to raise them for this purpose, as they yield a smaller crop than coarser varieties.

If any of the boys or girls want to try the experiment of making starch, it can easily be done at home. Take a half dozen potatoes and grate them to a pulp. Lay the pulp on a coarse sieve and pour cold water upon it, and allow that which washes through to stand a few hours, and the starch will be at the bottom, fit for use.

Winter comes early here. Snow fell so as to cover the ground during the first week of November, and sleighing usually lasts four or five months, leaving a season rather short for Indian corn, which, however, is cultivated to some extent.

All mountain regions are said to produce strong, healthy, free and virtuous people, and this region is no exception to the rule. Hard work, pure air and few temptations, perhaps, may explain the fact.

Let not New Hampshire mountains be forgotten when summer again drives people from their city homes. Yours truly, H. F. FRENCH.

For the New England Farmer.

REVIEW OF THE SEASON.

MR. EDITOR:—A review of the season may be interesting to the cultivators of the soil, and journals from different parts of the country kept with considerable care, would be of great value, not only in comparing the fluctuations of the season at a given place, but to compare the climate of different parts of our country with each other, so that we may know what crops have been successfully raised at any given place, and what failures have occurred, which has much to do with the prospect of market prices in the future. The unsteady climate of New England is sometimes more favorable to the husbandman than the more steady climate of the Mississippi valley, yet with all our mountains, rocks and hills, kind nature furnishes us with all the necessaries and many of the luxuries of life. The season has been propitious—our crops have been mostly first rate, and although some failures have taken place, they are more in the form of luxury than any of the necessary elements of life. I will now take a review of the months from the record of 1858, beginning with the growing season.

April has been about half a degree colder than the mean, yet having a temperature more than three degrees warmer than 1857, but colder than 1855 and 1856. Only 2.25 inches of rain fell during the month, consequently the ground was much too dry for vegetation. Cold north-west winds prevailed to a great extent during the month, keeping vegetation in a backward state. April left but a scanty growth of grass in the pastures, while the forests were bare and desolate. The rain was much less in quantity than usual, and we had barely snow enough to whiten

the ground, but the mountains have frequently been covered, probably some inches in depth. The sky has been less cloudy by more than one-tenth than last year.

May was rather dry during the first part of the month, but copious rains about the 20th gave plenty of moisture to the ground, which was wet enough during the remainder of the month. The mean temperature of the month was 51.61 degrees, being 1.31 degrees colder than last year, and 2.91 colder than the mean of the past five years,—being the coldest of the six. 1854 was the warmest, being 57.64 degrees, being more than six degrees warmer than the present. There was a light, easterly wind a considerable part of the last three days of the month, at the time when apple trees were in full bloom. Fruit trees of all kinds had a full medium quantity of blossoms, but not a great extra amount. The rains during the latter part of the month were favorable to grass, which appeared very promising.

June was neither dry nor wet, but had about the usual quantity of rain; its amount was 3.87 inches. The weather was warm and favorable to the growth of corn. The mean temperature of the month was 67.58 degrees, being 7.15 degrees warmer than last year and 3.48 warmer than the mean of the five preceding years. The warmest day was the 25th, when the thermometer stood at 91 degrees at 2, P. M., while the mean temperature of the day was 82 degrees. This was the most favorable month for corn during the season.

The first half of July was rather dry for vegetation, but the latter part was exceedingly wet. Rain fell on 15 days. The temperature of the month was 63.37 degrees, being 6.05 colder than last year, and 1.06 degrees colder than the five preceding years. The amount of rain was 4.80 inches. The month was unfavorable to corn.

August had a temperature of 65.67 degrees, which is about an average. The rain was distributed in showers through the month, giving a bad hay season, but no excess of rain; its whole amount was a little less than three inches. Rain fell on 17 days, and the amount of cloudiness was 45 hundredths. Owing to the cold of July the corn crop remained in a backward state.

September was warmer than the same month in the five preceding years, by 1.19 degrees, and had a temperature of 59.52 degrees, which was warmer than last year by 2.39 degrees. The amount of rain was nearly 3 inches, or about an average. The first frost occurred on the 23d day. It was hard enough to kill most vegetables, and was preceded by a thunder storm two evenings previous. The mean temperature of the last six months was 58.95, and the warmest month was June.

On the condition of these six months were included the hopes and prosperity of the farmer, for a supply of all his wants. Nature has furnished that supply. His corn crop is considerably above an average, with large, well-ripened ears. Potatoes were never better, yet the rot has done some damage. The warm and moist weather of September has increased the malady, but yet the supply is greater than the demand. Of the cereals we have a fair crop. Wheat is much better than last year, yet some pieces are nearly destroyed by the weevil and rust. Late wheat suffered much from rust. Oats are a good crop, seldom better, yet the amount of land in oats is comparatively small. Grass was about an average crop, rather below than above. The season was rather unfavorable for haying, yet no great amount was damaged. The fruit crop is, at least, a partial failure. Apples are very scarce and small. Plums are almost unknown, while grapes have yielded abundantly. Wild fruits and nuts exist in very limited quantities, and the seeds of forest trees in general are scarce. Not only during the season of blossoms, but through the whole summer, we have had an unusual amount of east wind, whose blighting influence is felt in this section on the whole fruit crop.

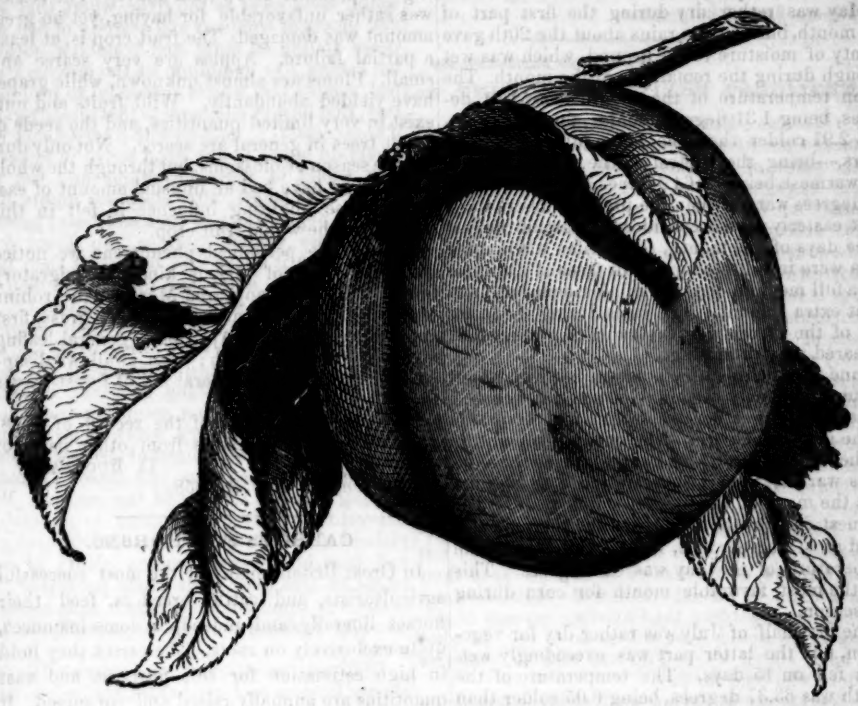
Among the periodical phenomena we notice the appearance of various kinds of migratory birds. Bluebirds appeared March 17th; robins March 19th; barn swallows May 3d; grass, first appearance of growth April 6th; general leafing of forest trees May 15th; barn swallows disappeared August 27th; general fall of forest leaves took place Oct. 21st.

Such are the results of the record of 1858. Shall we hear like results from other parts of the country? D. BUCKLAND.

Brandon, Vt., Nov. 8, 1858.

CARROTS FOR HORSES.

In Great Britain, many of the most successful agriculturists, and cattle breeders, feed their horses liberally, and, indeed, in some instances, quite exclusively on roots. The carrot they hold in high estimation for this purpose, and vast quantities are annually raised and consumed. It has been estimated by some writers on domestic economy, that a bushel of carrots is equal to half a bushel of grain; but although this is doubtless a somewhat extravagant appreciation, we have no doubt that three bushels of carrots will prove, in all cases, fully equivalent to one of oats. It was stated not long since in one of the papers, that the proprietor of one of the most extensive livery stables in Connecticut "considers carrots the most valuable article of *winter feed* he has ever raised." Rasped, and mixed with chopped straw, or refuse hay, they answer a double purpose of economy, and render the expense of wintering animals far less than it would be were we to employ only English hay and grain. Hogs winter admirably, and even fatten on these roots. We advise every farmer who can command a piece of old, well worked, rich and *deep* soil, to put in a few square rods, and try them. The seed may be sown in this climate as late as the twentieth of June. The ground should be finely pulverized by harrowing or some other equally efficient disintegrating process, and thoroughly rolled after sowing the seed. Guano and bone dust are efficacious and salutary stimuli for the crop. Ashes, also, and gypsum, have a decidedly favorable and energizing effect. But plenty of good barn manure is best.



THE PEACH.

Among all the fruits natural to the growth of our soil, there is not one that will compare favorably with a well ripened peach of one of the finest varieties. The grape and the pear must yield the palm to the peach, and so must the plum, even if we should select for a comparison the Green Gage, the Washington, Jefferson or Columbia.

The pear, the plum and the grape are excellent dessert fruits, and are grateful to every taste; but the peach, while it claims just as high rank as a dessert fruit as any of those, may be made to serve as a nourishing, substantial food in situations where they can be raised cheaply in large quantities. We have never known a person who did not like the peach. It is palatable and wholesome when ripe, and uncooked, and when cut and served up with sugar, one of the most delicious sauces that ever came upon the table. In their ripe state they also make the finest puddings and pies, always being in demand at the table, even though epicures surround the board. When quartered and properly dried in a kiln, prepared for that purpose, they are just as suitable for a sauce, and in the estimation of many, quite as good as when fresh from the tree, for pies or puddings.

We believe the peach and grape to be the most easily digested and the most wholesome fruits we have, and that if we used them as articles of food to a much greater extent than we do —not as articles to please the appetite merely— there would be much less sickness among us than usually prevails in the autumnal months.

If this be so, is it not worth while for every person cultivating a piece of land, to introduce a few peach trees, sufficient, at least, to supply his own table, provided his location is suited to their growth?

It is not our purpose now to speak of the varieties of this fruit, or of the mode of culture, or the soils most suitable for them. That has often been done in these columns, and probably will be again.

The beautiful figure above, which we now present the reader, is an illustration of *Van Zandt's Superb*, a very light colored and handsome peach, originated some years ago by Mr. Van Zandt, of Flushing, Long Island. It is one of the most beautiful dessert peaches, though only of medi-

um size, and possesses a very agreeable flavor. The flesh is whitish, but tinted with red at the stone, melting, juicy, sweet, and of good flavor. Ripens first of September.

For the New England Farmer.

NEGLIGENT HABITS—BORROWING, &c.

MESSRS. EDITORS:—Heedlessness costs us more than we are aware of; did we but consider the value of the time spent in consequence of our negligence, at a price we should charge our neighbor for work, we could readily account for the deficiency which often happens at the end of the year in balancing our books. The habit of borrowing tools or farm implements of a neighbor is not only a heavy tax upon the time of the borrower, but an annoyance in addition to the loss of time in the lender. The borrower not only sustains the loss of his own time, but frequently one or more men are idle for the want of tools to commence work, and in a few years the habitual borrower loses enough in his borrowing visitations to stock his farm with tools, beside disgusting his neighbors to ill will, and wishing the borrower well supplied with implements of his own.

Borrowing is excusable in beginners, especially in young men who are not wealthy; but for farmers or mechanics to depend upon their neighbors to furnish them with tools, does not look like regarding the Christian precept of doing as we would have others do to us. In what I have stated above I do not wish to comprise those who lend for pay.

Negligence in paying small debts is one of the worst of non-State-prison offences; the debtor injures his own credit as untrustworthy, and his character as an honest man; he injures his creditor by withholding his honest dues, and he stands a poor chance to make a profitable speculation, if he wishes to borrow money to accomplish it; nobody has money to let to a negligent borrower, and to cap the climax, he is liable to have the sheriff's fee added occasionally to some of his small debts. Pay up small debts and interest on large ones punctually, and my word for it, your credit will command respect, and your neighbor's spare money will be at your service, whenever you see an opportunity to make a profitable use of it.

The most cruel negligence is disregarding the wants of the poor laborer; reason, common sense, common honesty and Scripture, all tell us that the laborer "is worthy of his hire." Men and women who have families of needy children, which are dependent upon the income of the daily labor done by their parents, to supply them with food, clothing and shelter, stand in need of prompt payment, and whoever declines prompt payment for such services, and will put these worthy people to the dreaded task of dunning the delinquent to the hundredth time, is not worthy to claim a right to the Christian name, let his professions be what they may.

Many persons suffer more for the want of promptness than they do by drought, curculio and the whole tribe of insects. I have observed in different towns where I have lived, the different habits of my neighbors; some of them who possessed valuable farms, in the spring of the year would want a few shad or other fish for family use, and with a provident care for the future, would wend away to the river, where they would find plenty of company and scarcity of fish, sometimes toiling all night and "catching nothing;" but fishing, like gambling, let the luck be good or bad, tempts him who is successful to prolong his stay, that he may add more to that already gained; if unsuccessful, to hold on with a persistency which would do honor to any good cause, in hopes that luck would be more propitious and fish more plenty. At length, after sleepness nights, disappointed hopes, waste of time and heavy potations to "restore wasted energies," Jo Trout & Co. would think it about time to look at their farms. After arriving home, and the fog had dispersed from the mental atmosphere of Jo and Co., and vision restored, they could see their neighbors finishing their spring work of manuring and seeding their ground; then commenced the bustle and hurry among fishing farmers; everything was to be done; plowing, manuring and planting must be done in a hurry, which is no way to do a thing well, and so instead of driving business, business took the reins and drove Jo and Co. fretting through the rest of the season. When harvest time arrived, my fishing neighbors complained of bad seasons, poor crops, blighted grain and frost-bitten corn; and a plenty of weeds might be seen over their whole premises. This is the way some folks make both ends meet, and consider farming as really an unprofitable business!

Without promptness and systematic order among farmers and mechanics, confusion, delays and loss of time take place, to the detriment of the owners or interested party, which diminishes the profit of their labors and often prevents success. The successes of Washington, Jackson and Bonaparte were more owing to their promptness than to any other circumstance; by their quick decision and rapid movements they surprised the enemy, unprepared to engage with them. Had Gen. Washington been as much at ease, and tardy, as some of the British generals were, his negligence would have given Cornwallis an opportunity to have escaped his clutches at Yorktown, to continue his depredations and prolong the war, and perhaps to end in the subjugation of the colonies. SILAS BROWN.

North Wilmington, Nov., 1858.

REMARKS.—The above abounds with valuable suggestions, which ought to prompt us all to strict discharge of our duty.

THE MANAGEMENT OF PERMANENT GRASS LAND ought to be much studied by our farmers. *We plow too much!* By fall manuring we may keep up the productiveness of a meadow for many years, and the hay will continue to improve in quality. So, also, of pastures. Plaster should be used more freely. It is not right, either in morals or agriculture, to always take and never give—we must carry out "the doctrine of compensation."

For the New England Farmer.

DRAINING IN NEW ENGLAND.

Our solitary but good-natured friend, "S. F.," in a recent article upon thorough draining, offers some statements and logic that are rather flattering to the ability or good sense of our New England farmers. He says, in italics, just as though he meant it, "That the thorough draining of our old farms in New England, is simply an impossibility." All are ready to admit that there are many farms, which, at the present value of land, I mean good land in the immediate vicinity, would not "pay" for draining: but it is no less a fact that all wet and low lands *can be* drained, and nine-tenths of them at a moderate price, say from thirty to fifty dollars per acre.

Let us look a moment at his mode of reasoning. He says that the average value of our farm land is twenty dollars and twenty-seven cents per acre; draining costs twice that amount, hence it is impossible! To illustrate this mode of reasoning: suppose that S. F.'s watch has been neglected for a long time, needs repairs, and stops. S. F. takes it out, looks at it, finds "no tick here," says to himself, "This don't go, no use, think I will throw it away and get another." But a bright idea strikes him; "the watch as it is, is worth a dollar and a half, if the watch-maker will repair it for a dollar, I shall make fifty cents by saving it." F. starts for the watchmaker, finds him; but the extravagant mechanic wants two dollars for adjusting the watch. S. F. indignantly informs him that the watch is only worth one and a half, and it is absurd to think that he will pay two dollars for having it repaired. Watchmaker says, your watch will be worth twenty dollars when I have done with it. S. F. goes off disgusted with the stupidity of watchmakers, throws his watch into the dock, and finally believes that he has saved a half-dollar by his sagacity. The whole point of his argument is this—that a farmer must not spend more in the improvement of a piece of land than the land is worth before he begins to improve it. Every practical man knows better than this, for he may have a piece of meadow land so wet as to be entirely worthless, and by laying out ten dollars in ditching, he can make it worth a hundred to him. But to be still more practical, I will give a fact which will prove the fallacy of all such reasoning. Two years ago there was a piece of land near Boston which was worth nothing at all; in fact, was a nuisance; the owner spent about five hundred dollars per acre in improving it, and his land is now valued at one thousand dollars per acre; was it possible or impossible, to lay out more on the land than its value, and still make it pay?

Your correspondent seems to be in a severe fright about ditch-digging—he fears that when our young farmers learn what an unlimited amount of ditching is in store for them, they will "start in their boots," and scamper for the west without as much as looking behind them; he seems to have forgotten that the West is pre-eminently a muddy place, and that they have already called one of our best engineers to lay out drains, and extricate them from the mud. If all accounts are true, "top boots four feet high," would afford no protection for travellers on the *soft* lands of the West.

Since F. thinks it so horrible for our farmers to be obliged to dig ditches, I would like to ask him which he thinks the most pleasant and satisfactory for a farmer, to spend two or three weeks in the dry part of the fall, ditching and laying tile, or to have for life to pole his hay from spungy wet meadows, with boots full of filthy water, green snakes, lizards, frogs, and other such pleasant denizens of his good old-fashioned farm, and dig his half-crop of potatoes out of black mud, while his boots are loaded with the same rich alluvial, and his hands feel "kinder dry like."

I am truly sorry that the sight of tile gives our friend the horrors, for I see no chance of relief for him, indeed, my imagination is so very different from his, that I see the spirit of the age still remaining with us. Her crown is still the wheaten wreath; with one hand she swings the spade, with the other firmly grasps the drain tile, through which she lustily shouts, "home, boys, home, there is no place like home."

Boston, Nov., 1858. PENSA.

WINTERING CATTLE.

In New England, the winter feed of cattle consists principally of dry, unsucculent fodder—hay and straw. Occasionally roots are given either daily or at intervals, in order to give variety to their diet and create a keener relish,—but as a general thing the main reliance is upon the articles first named. Of straw, the most nutrimental, probably, is that of wheat, especially when the crop is harvested when in the "milk," or at the period of its growth when the grain is changing from its milky condition to a doughy or pulpy consistence. The straw of oats and barley rank next in value, and that of rye, as fodder, the last. On farms of large size, much more account is made of the straw of these grains, than in smaller ones. It is then prepared by cutting, and is generally fed out in conjunction with corn and cob meal, or with roots, rasped, cut or cooked. It has not yet been fairly ascertained by accurate comparative experiment to what degree the various roots used in feeding cattle are improved by cooking. That their nutritive powers are considerably augmented by the process, seems now to be generally admitted; but whether, when we consider the advantages of rasping—which is performed by a machine capable of dispatching the business with great facility, the increase of alimentary power secured by boiling is adequate fully to indemnify the operator for the trouble and expense involved, is somewhat doubtful.

Where rough fodder is to be used, either boiling, cutting fine or rasping, will be found highly economical, as without some such aid, a very large portion of the haulm and straw produced on the farm would possess but a mere nominal value in an alimentary estimate of the products, and would scarcely be worth the storage for any purpose to

which it could possibly be applied. Boiled potatoes are preferable to raw ones in fattening swine or beef cattle, as the boiling diminishes their laxative properties, which are often detrimental to health, especially when fed in large quantities, and thus tend to counteract the very results they are intended by the feeder to produce.

The English agriculturists recommend boiled potatoes in stall feeding, and raw ones for feeding cows in milk.

Machines have been invented, and for a long time in use, in various parts of Europe, which reduce the roots to a semi-fluid or semi-liquescent state; but towards these, the more intelligent portion of the agricultural community are not, apparently, very favorably disposed. But the cutting machine, or root-cutter, now so generally in use in New England—and which reduces the root to fine pieces, is perhaps one of the most valuable implements that can be used in the preparation of food for domestic animals. The use, therefore, of one of these, where roots and straw constitute the principal articles of food, is recommended both on theoretical and practical considerations, and will be found highly economical, saving both time and fodder, and securing, at the same time, all the important results produced by a more costly food.

For the New England Farmer.

ECONOMY IN TOOLS AND STOCK.

MR. EDITOR:—In agriculture, as well as every other branch of business, an eye must be kept out for the expenses. A reduction in these, as far as is practical, is commendable in the farmer. When he wishes to buy an article for farming purposes, he should know just what he wants, and in order to ascertain this fact, he should look at and test the new, as well as the old articles that are in the market. He does not want to purchase an article because it can be bought low, unless it is what is wanted. He wants the *very best* kind, and in purchasing such he saves time and labor, and labor is equivalent to cash. After an article is bought it should be taken care of, and after it has been used, it should be carefully laid away until it is again wanted for use.

In speaking of economy in farming, I do not wish to be understood that it is good policy to keep short, or starve animals that are kept for work, or otherwise. If farming will not admit of keeping a horse, oxen, cows or any other animals, well, which the farmer may think proper to keep, some of them should be disposed of. Above all things, do not starve a horse, one of the noblest animals we have. In speaking of horses, the farmer does not need what is termed a "three-minute horse," but a good family horse; one with which he can take his family to church; one that can be hitched to the cart, or drag; one that, if his wife wishes to go to a friend's to spend an afternoon, can be driven by her in safety.

If four cows cannot be kept well, keep less. By the way, it is a good calculation to give cows a little meal once a day; the milk is of better quality, and flows much longer, and there is much more refuse milk to give the hogs, which thrive much better on milk and meal, than they do on water and meal. The breed is quite an item in the rearing of hogs, but I have only time now to speak of it, as a hint.

HENRY CROWELL.

Londonderry, N. H., 1858.

For the New England Farmer.

ROOT CROPS.

I notice the article in this week's *Farmer*, under the caption "Root Crops," which evidently emanates from a gentleman, "E. E.," who does not think very highly of them, and has, I presume, had indifferent success in their culture.

He inquires, in the outset, if a man can pull, top and house, a hundred bushels of English turnips for three dollars? I am not informed precisely of the *size* of the aforesaid esculent, but will say in reply, that this Monday, Nov. 8, 1858, three of us have "pulled, topped and housed," 325 bushels Swedish turnips, at an expense of less than three dollars for the lot, and also, if Mr. "E. E." will bring on *his* turnips we will take the job off his hands at the same ratio. This much for that lion.

He then goes on to note his ill success in growing them with his corn, and finds fault because he did not get two good crops from the same soil. Too bad, *intirely*.

Again, he acknowledges, that in feeding out, they increased the quantity of the milk, but not of the butter. Some hocus-pocus here, surely!

And, finally, he says he would not have them in his cellar because they scented up his house. The probabilities are that this took place merely for want of sufficient ventilation.

The writer has practiced the raising of root crops for a series of years, having the present season harvested some 2500 bushels, and will follow it no longer than he is satisfied it will pay in every sense of the word. His present opinion, founded on years of experience, is, that there is no better means of renovating the soil, than by growing roots and feeding them out on the farm; carefully saving, housing and applying the manure derived from feeding them out, and that a perseverance of this course for a term of years will most assuredly tell upon the fertility of his land.

What comparison, indeed, is there between a ton and a half of grass to the acre, and fifteen tons of roots, both as to feeding and manurial purposes? To be sure, the roots cost more culture and higher manuring,—but, after all, there is no comparison as to their value.

Thus have I attempted to reply to some of "E. E.'s" objections to this branch of farming, feeling that he must have obtained a wrong idea of its practicability. W. J. P.

Salisbury, Conn., Nov. 8, 1858.

REMARKS.—The writer of the above is one of our best New England farmers,—working with

his own hands, and constantly exercising a sound judgment in his operations. He took the first premium on farms at the Connecticut State Fair, in 1856. Our opinions are more in accordance with his than with those expressed by Mr. Emerson; but we like the objections of Mr. E. because their tendency is to call out facts like the above.

For the New England Farmer.

THE FARMER'S POSITION.

"Pride still is aiming at the blest abodes."

MR. EDITOR:—This subject is rather hackneyed, I grant; but the fact shows that the rural population take an interest in it, as they write so frequently about it. With many of the sentiments of the various articles in the agricultural journals relative to this Protean matter I heartily coincide. That the position of the farmer, who owns his farm, and is obliged to work it for his maintenance, is a position of average respectability, profit, happiness, and rather superior as to health, I am fully persuaded. But more than this I am not prepared to admit. This paper is devoted to the great agricultural interest of the country; but I suppose you, as agricultural editor, are not prepared to claim that it is the only important interest, or that it can be made remunerative without supporting, in return, those other and varied interests. All men should not be farmers, nor are all men fitted to be—in a high state of civilization—whatever we may say of the natural blessedness of farming. It seems to be a law of progress, that the more advanced civilization is, the more must labor be subdivided. And in this state all vocations are reciprocally dependant. Allow a correspondent who has annually written more or less for your neat, interesting and valuable periodical, ever since its origin, the freedom of saying, that he thinks many of the articles which appear in the agricultural journals—on the particular vocation to which they are devoted—to be over-wrought; and, if written by farmers, a little *too self-laudatory*. If not written by practical farmers, they can have but little or no claim to belief. I grant the fault is common in other vocations; but it may be no less a fault in all. The profession of the law demands the most learned men, though there is a very strong suspicion that it can tolerate those that are not the most honest! And it claims to be the royal road for those "seeking the bauble reputation." Medicine also requires the greatest amount of intelligence, and claims unsurpassed honor, though it admits it is a little plethoric in the varied *opathies*, and requires a gentle, if not a brisk, purging. The profession of theology claims to be *divine*, and admits no superlative, or even equal, in any vocation; though its divinity must be weak in proportion to its compass, if it embrace all the *pseudo* religions of the present *business* age.

But I return to agricultural laudation, or exaggeration—which is evidently injurious to the cause it would foster, furnishes vulnerable points for attack, and leads young men of the country to turn their backs on what they know to be false, and also upon the farm itself—at least till they try their capacities somewhere else.

In the monthly *Farmer* for October, I notice a well written article on "Farmers' Sons as Scholars," by Mr. Euler Norcross, of South Hadley—though the hope expressed in his last paragraph I think can never be realized—believing that the profession of the farmer can never become one of the "*learned professions*." That farmers' sons frequently make better scholars than some others, cannot be gainsaid; but perhaps no better than those of the mechanic, or laborer, or of any other vocation, where the son has been drilled to severe industry and economy. The poor and sedulous student believes with Franklin (who snatched his education from the universe, and not a farmer's son either,) that "A vocation to be profitable must be worked." What Mr. N. says of this class is very well; though he ought not to imply that they are all farmers' sons, or that there can be no poverty, industry and scholarship anywhere else!

But passing to a more important point, I wish I had faith to hope with him for the sublime realization of the thoughts expressed in his last paragraph; but it—(my faith)—has shown me so many "jadish tricks," and so seldom given me anything but old and stern realities, that I am reluctant to give it credit. Mr. N. says:

"I hope the day may come when our farmers and laborers shall rank first in point of education among the people of the land; when every farmer shall not be afraid to compare his education with any college graduate. Then will labor really be honored, and our laborers be truly our nation's strength, the safeguard of our liberties and our country's pride."

The writer of the above, in his golden anticipations, does not say that he hopes farmers will rank *equal to* the "first in point of education," but rank *first!* How he is going to bring this about, or how it is to come, he does not hint. I am bound to suppose, however, that he expects that the day is not far distant, when every man intendedto labor on and carry on a farm for a livelihood, must first be fitted for college, (occupying two years,) then go to college and spend four years, and then to fit him for his special business, spend three years in a professional "School of Agriculture"—like the lawyers, doctors and ministers—before he can be in good working order for the farm, or able "to compare his education with any college graduate!" This plan would be expensive, but we think all our Universities would favor it, if no one else! But I am disposed to make the following query: Which would be the wiser of two young men having $1500 apiece, and intending to become farmers, he who procured his collegiate education first and then run the hazard of getting a farm afterwards, or he who purchased his farm first, and then afterwards educated himself in the best manner his means would allow? Mr. Norcross, however, may not intend that farmers shall be college-educated, but only as well educated. Perhaps he means they shall be self-educated. This would render the desirable state he hopes for still more hopeless; for instances of good self-education are comparatively rare. Men do not easily become a Franklin. We can more readily carry his bundle of stockings and eat his rolls, than acquire his philosophy.

Although I cannot sympathize with Mr. N. in

his bright anticipations, there are some others who may. I notice a writer in the May number of that very able and heavy-laden periodical, the *Genesee Farmer*, entertains similar views. He observes: "It will be a better day for all, when it is discovered that the highest honors of the college do not unfit a man for the practical duties of agriculture—that it is not burying one's knowledge to graduate from the college to the farm."

Why should not all mechanics, merchants, editors, artists and laborers, be liberally educated, to give dignity to their varied callings? I wish they might, but know that a tithe of them cannot be. These writers seem to be insensible of the immense labor requisite to properly educate youth. Although there is a vast amount of knowledge extant, and decreases none the less as it is acquired, yet the work of education is a Herculean and *perpetual* labor. Ignorance is the rock of Sisyphus, forever recoiling upon society. A man can easily drop a fortune into his son's lap, yet though learned as Newton or Bacon, he cannot give him an idea without effort—as education or learning is in its nature intransmissible. Hence it is an obvious fact that society will always embrace a large number of ignorant beings. They must be supported, and they must labor. What shall they do? If we raise agriculture, mechanics and trading above their capacities, they must enter the pulpit, the bar and medicine! Such an idea is, of course, preposterous.

In our large cities and towns are great numbers of able-bodied men, some from foreign countries and others native born, out of employment, and in danger of being led into crime. They are told to go into the country and go to work. But if a college education is to be required ere they can properly wield the spade and the hoe, an extensive means of employment will be cut off. Trying to be serious about the subject, I think they should be employed, even if the University farmers are obliged to hoe their row with such profound ignorance and brute force—of which the latter, I have always thought, never came amiss on a farm. These unlettered men should be directed and controlled, but employed they must be.

I beg pardon of all farmers when I repeat the opinion, (meaning no disrespect,) that to successfully carry on a farm does not demand the highest order of intellect, or the highest cultivation of an ordinary intellect. If it did, we could not expect many good farmers, neither could we hope to see agriculture popular, or farm products cheap and abundant, as they ought to be. It must be evident to every reflecting man, that the culture of God's earth should never become so elevated and exclusive, that the humblest man may not freely engage in it, if he choose, and not feel mortified and ill at ease from the vast array of learning and agrarian aristocracy around him. Farmers need not be scholastically learned, but they should be sensible, and understand *their* business better than any one's else. Perhaps "the highest honors of a college" may not "unfit a man for the practical duties of agriculture," but if they beget in him—as they always do—a belief that he can get an easier livelihood in some other vocation, the result to the farm is the same as if they did. Men do not labor here or there, from sheer moral obligation, but from necessity or interest. Give a hundred of our best farmers a college education, and then look and see if you can find them laboring three consecutive days in their former employment—except as a mere healthy pastime!

If carpenters, masons and painters should meet in convention, and resolve that they and their business could never be properly respected until their education was as good as that of any college graduate, I will venture to say that farmers would smile; for their labor is more of the hand than the head. Yet it requires no more liberal education to raise corn and potatoes than to build a house.

The respect which a discerning public yield to the cultivators of the soil is permanent and healthy, and should be appreciated. It is true, they cannot expect, as such, to be recorded in history, or to live in the future in brass or stone—as we hope good farming is too common a thing. This esteem is not that which is periodically lavished upon them by the politicians for their endowment of suffrage, but that which a State or federal election cannot effect. If their respect were to rise and fall only with the political barometer, they might well complain. As it is, we think it argues ill for them to demur, as he who habitually laments his position, instead of boldly pushing on and forgetting it, rarely is successful.

Hon. Horace Greeley, of New York, lately delivered an able agricultural address in Indiana, from which I quote the following sentence: "It is the most melancholy feature of our present social condition, that very few of our bright, active, inquiring, intelligent youth are satisfied to grow up and settle down farmers." With all deference to Mr. Greeley's opinion, and unfaltering respect for the farmer's position, I cannot think so. If the children of the hardy yeomanry make some of the most enterprising men in the country, I can see no good reason why other interests and vocations should not share in the benefit of them. If the country sends men to the city, the city returns men to the country, and they are more likely to become contented, and hence better farmers than those youth who have had an opportunity to see but little of the world ere they "settle down farmers;" for the latter can rarely be made to believe that they could not have bettered their condition. Let these intellectual youth go. If they succeed, no one can complain; if they return to become farmers, they will be the more happy. I question whether Mr. Greeley would ever have delivered his elaborate address on Agriculture, if he himself had not wandered to the city, where he assumed a vocation whose successful flow led to the establishment of the New York *Tribune*, and sent its proprietor to Congress. Will farmers lament and exclaim, "O, how much has agriculture lost in Horace Greeley's early becoming a printer?" But he now owns a farm and takes a great interest in rural pursuits. Very well. Will he give his whole attention to that vocation which seems to inspire him with so much respect? If so, and he bring ample means with him back into the country, has agriculture or the community suffered? Others may do the same.

Those who do the least on the farm, I sometimes suspect, are the loudest in its praise. The

"intellectual youth" see this, and as example is stronger than precept with them, they take the liberty of bustling in the flood of society, till they can well judge for themselves what vocation they shall choose. I think, on the whole, this is well. Agriculture has many resources, and will take care of itself. It stands on too important and permanent a basis to be shaken by smart boys. But while on this subject, let me observe, that if farmers really wish their sons to remain at home or on a farm, they should be careful that they do not compel them to labor and associate with every ignorant and vicious workman that may come along, because their necessities make them cheap; for youth, with proper self-respect, will resent it as an indignity. It is true, as I am bound to believe, that the time will never come when college graduates will let themselves out on a farm by the month, or that such men as Daniel Webster, Edward Everett, Ralph W. Emerson, &c., will be seeking employment in the rural districts; yet farmers will do well to discriminate a little in favor of the most available virtue, good manners and intelligence, that may pass along—besides giving an air of cultivation and content around their homes.

But I will close this extended communication by the relation of a simple anecdote. Some few years ago I heard a gentleman deliver a lecture upon "Character." It was a dull, prosy thing, and those who knew the value of "balmy sleep," were inclined to nod. Yet at its close he apologized for any thing that might have been too pointed! Not wishing to appear as that gentleman did, I drop my pen without pleading favor.

W. Medford, Oct., 1858 D. W. L.

For the New England Farmer.

USE OF FRESH MANURE.

MR. EDITOR:—I saw an article in a recent *Farmer*, from MR. WARD, "about manures." I am glad he had the courage to write his experience, which differs so much from the practice of some, and the theory of many more. The reason so many barn cellars are built, is not because the many know their benefits, but because it is said to be the best way to manufacture food for plants. From results in my own experience, I find that the manure composted under cover, is a dangerous article as food for plants. I have used manure that has lain a considerable time in a barn, (merely on the top of ground in that section usually styled a bay,) for the corn crop, and not more than five per cent. of the corn planted ever came up. I have observed, in different fields, that where manure from barn cellars is used, that the corn plants were sadly deficient in number at harvest time. After forty years' labor among corn crops, I find more changes, among cultivators, for the worse, than for the better. Mr. Ward, it seems, has a question in his own mind, whether to remove his manure from his cellar, in accordance with his better judgment, or to let it remain as do his neighbors, and have a scanty crop. My advice is to give his manure the benefit of both sun and rain.

There is no place more suitable for manure in the winter than under the eves of the south side of the barn. All the water that falls from the barn, and the snow that accumulates upon it, is no more than is needful for the preparation of the manure to fit it as food for plants. Whatever loss there is by evaporation from the manure heap in a dry day, is more than balanced by receipts from the atmosphere in the night-time and in cloudy days.

I believe it is good policy to have our yards for manure outside the barn; let swine have free access to them during the day time, and fifty per cent. more manure in value may be made, than in the more modern way, of keeping both manure and swine in a cellar. At the same time swine will be more healthy, and consequently more profitable.

If space was not so limited, I should be glad to say a few words touching the corn crop. It is in fact *the* crop of New England, so far as profit in dollars and cents is considered. With due care in preparing the manure, in selecting and cultivating the soil, selecting the variety of corn for seed, and choosing from that variety, with a dozen other etceteras, the corn crop will assuredly pay from twenty-five to forty per cent., year after year. R. MANSFIELD.

West Needham, Nov., 1858.

THE LABORER AND THE WARRIOR.

BY EPES SARGENT.

The camp has had its day of song;
The sword, the bayonet, the plume,
Have crowded out of rhyme too long
The plow, the anvil and the loom!
O! not upon our tented fields
Are freedom's heroes bred alone;
The training of the workshop yields
More heroes true than war has known.

Who drives the bolt, who shapes the steel,
May with a heart as valiant smite
As he who sees a foeman reel
In blood before his blow of might;
The skill that conquers space and time,
That graces life, that lightens toil,
May spring from courage more sublime
Than that which makes a realm a spoil.

Let labor, then, look up and see
His craft no path of honor lacks;
The soldier's title yet shall be
Less honored than the woodman's axe;
Let art his own appointment prize,
Nor deem that gold or outward light
Can compensate the worth that lies
In tastes that breed their own delight.

And may the time draw nearer still,
When man this sacred truth shall heed,
That from the thought and from the will
Must all that raises man proceed;
Though pride may hold our calling low,
For us shall duty make it good:
And we from truth to truth shall go,
Till life and death are understood.

EMERY'S JOURNAL OF AGRICULTURE AND PRAIRIE FARMER, published at Chicago, at $2 a year. This journal has earned for itself a good name by its neat appearance and its practical good sense. The prairie farmers can increase their profits by reading it carefully, to say nothing of what it may do for the women and children. We wish it great success.

For the New England Farmer.

UNITED STATES AGRICULTURAL FAIR AT RICHMOND.

MESSRS. EDITORS:—Having in a former communication given some account of the stock at the Fair, it remains for me to notice, briefly, the other departments.

The vegetable, fruit and horticultural departments were not largely represented, but each contained some very fine specimens. There were very nice potatoes, sweet and Irish, some very large cabbages, one that weighed sixteen pounds, some excellent beets, both table and sugar beets. The fruit show consisted chiefly of preserved fruits, such as the strawberry, plum, peach, cherry, raspberry, &c. There was a good exhibition of preserved fruits and other vegetables. The show of plants and flowers was quite small. It contained, however, some of the finest and most elegant roses that I have ever seen. The "Old Dominion" is famous for fine roses, as I ascertained by observation and from conversation.

The domestic department contained a very creditable exhibition of the handiwork of the ladies. The Southern mothers and daughters gave demonstrative evidence of possessing much skill in needlework and embroidery. This department is becoming a prominent feature in all our agricultural exhibitions, County, State and National Let it be encouraged, for it is a hopeful omen. Not only needle-work, shell-work, embroidery, &c., but bread, cake, butter, cheese, and other edible things, are also exhibited, showing a great diversity of skill in these several arts, so essential to domestic comfort and enjoyment. It is true that bad bread and butter and poor cheese will prevent starvation, but let it be remembered that good bread, sweet butter and delicious cheese are a continual feast in the few households where they not only abound, but superabound, as in some that we wot of. Wines and grapes were on exhibition, which I omitted to mention in connection with the fruits.

One of the most prominent, interesting, noteworthy and important departments of the Show, yet remains to be mentioned with some minuteness, and that is, the one including farm implements and machinery, designed to promote and aid farm labor in its various departments, such as relate to the tilling of the soil, sowing or planting the seed, cultivating the crops, harvesting them, husking and shelling the corn, threshing and winnowing the smaller grains, potato-diggers, &c. There was a very creditable exhibition in this department.

What surprised me more than any thing else that I noticed in connection with the Show and Fair, was, that so many of these were made south of Mason and Dixon's line. I regarded this as a favorable omen, but was told by Southerners, that they regarded or looked upon it otherwise, for, said they, "Our agricultural resources are what we are to study to develop and make productive, leaving other portions of our country to do the manufacturing." This is undoubtedly good doctrine and true. New England has a hard, unproductive soil, naturally, but capital facilities for manufacturing, as is demonstrated by her wares, which find their way into all markets.

Among the reapers and mowers, are Morrison's, manufactured in Richmond, Atkins's Reaper and Mower, made in Illinois, the Buckeye, Allen's, the Eagle Mower and Reaper, and others. The last mentioned was exhibited by A. G. Mott, of Baltimore, agent of the House of Nourse, Mason & Co., Boston. I heard a good account of this machine. The same Eastern House had several other articles on exhibition. I wish they had sent on samples of all their plows; for the show of plows was not very good, at least, I so judged, after careful observation.

Watt, of Richmond, was a large contributor to the implement department, and especially to that of plows. Mr. W. is a very intelligent and enterprising mechanic, as I had ample opportunity to learn. Iron plows were exhibited by R. B. Winston, of Richmond. There was a machine called the corn and potato-furrower, from Orange county, Va. Cultivators of various patterns, shovel-plows, surface-draining-plow, (price $25,) which will enable a man to drain sixty acres a day, with three mules to draw it. I shall refer to this again.

There were various planters, seed-sowers, drills, &c., some of which excited much attention,—and none more so, nor more deservedly, than Wiggin's Corn-planter, from Boston. This was made to be drawn by two horses, and to fertilize and plant four rows at "a bout." It is so made that a plowshare like implement opens a small furrow, the corn and fertilizers are dropped, covered by a contrivance that turns the furrow back, as it were, and then rolled by wide-rimmed wheels, which follow and finishes the work. This machine made a decided and favorable impression upon those farmers who have much planting to do on smooth land. It may be so constructed as to be used with one horse or two, and to plant the rows three, three and a half or four feet apart. To Mr. Wiggin was awarded the medal for his invention. It is just the thing for planting corn in the Western States, where the steam-plow, it would seem, is destined to turn up the soil ere long. Farmers of the West, just think of it! A steam-plow to till the soil and fit it for planting, Wiggin's planter to put in the seed, horse-hoes and cultivators to do the weeding and cultivating with, a harvester to gather it, worked by horses, Nourse, Mason & Co.'s huskers and shellers, and Sanford's mill for grinding it for stock or the table, leaves but little for hand labor, all, nearly, being done with machinery, propelled by steam or horse power.

There were subsoil plows and a great variety of other implements, that excited much attention, among which were barrows, carts, wagons, hay, straw, corn-stalk and husk cutters, platform-scales, horse-powers, steam-engines, grist-mills, saw-mills, threshing-machines, a superb tobacco-press, a machine for making syrup of the Chinese sugar cane, &c., &c.

The Platform Scales, for weighing hay, live stock and other ponderous products, patented by Strong & Ross, and manufactured by J. Howe, Jr., Brandon, Vt., and Frank E. Howe, New York city, proprietors, attracted much notice. They were used for weighing the live stock on the Fair ground.

These scales are the best adapted to the wants of the farmers, not less than to others, of any that I have yet seen. They do not require a pit

to be dug to the depth of three or four feet, but may be placed upon the surface of the ground, and used as was illustrated on the Fair grounds. The knife-edges upon which the scales turn are protected from dulling by the use of balls; but two simple levers are used, thus avoiding complications; remarkable for their self-adjusting power and accuracy, absence of check-rods, and may be used for weighing upon an inclined plane, a peculiar and convenient quality for some localities. They were tested by placing a heavy substance upon the centre of the platform, weighing it, and then moving it to the several corners of the platform and weighing it, without showing the slightest variation. The judges awarded the silver medal and the bronze medal on large and small scales as first premiums, as stated by the Secretary of the National Agricultural Society. More anon about implements.

ECONOMY IN FUEL.

Very much of the fuel consumed in our stoves is lost. If it is not dry, all the water it contains must be converted to steam, and this requires a large amount of heat. Could this steam be conducted to some reservoir, where the heat was wanted, and there condensed, the heat would be saved, but in ordinary cases, it passes with all its heat to the chimney. The only exception is when the stove-pipe is very long or passes through a cold room, and then, "O, what dirty work the dripping makes." Drying wood in the stove by fire, when sun and wind are afforded free, is like using sunlight to sleep by, and gas and oil to work by.

Another error consists in admitting more air within the stove than is necessary to promote a combustion of the fuel, and also admitting it where it does not aid the combustion. The object of air is to afford oxygen to unite with the carbon of the wood. In this chemical union, forming carbonic acid, heat is produced or given out. Now all the air admitted to the stove which does not so pass through the fire as to be decomposed and yield a portion, at least, of its oxygen, becomes only an absorber of heat already made, and a carrier of that heat off into the chimney to warm, not the room or its occupant, but "all outdoors." A very great error is often made by those who study economy. They split their wood fine, put but a little in the stove at a time, and give it a full draft in order to make it burn rapidly, so that a little wood shall make a large fire. But this little is repeated so often that the aggregate is large.

Would you study economy, convenience and comfort, then you will find them all in the same management. Leave most of your wood large. Have a little quite fine for starting your fire, use sun and wind to dry it. After your fire is started, keep a full supply of wood in the stove, never letting it get down to one stick, and give it so much—just so much, and only so much air as will keep the fire sufficiently alive to give the desired temperature to the room. Any person who will follow these directions with one stove, will save enough each winter month to pay for the *Culturist* one year, besides securing a large amount of ease and comfort.—*Berkshire Culturist.*

For the New England Farmer.

ENGLISH TURNIP CROP.

Mr. Brown:—Having tried an experiment (new to me) in the culture of the common flat turnip, which has proved successful, I am induced to furnish a detailed statement of the same, for the use of the thousands of farmers who read your paper.

The ground selected for my turnip crop was part of a field intended for corn culture next year—so that the plowing is so much work done in advance; extent half an acre. The soil is a light sandy loam. This was plowed July 22d; depth seven inches. After harrowing thoroughly, three ox-loads of composted manure and one barrel of wood ashes were spread on one-half of it, viz., one-fourth of an acre, carefully harrowed in, the turnip seed sowed and bushed in. The seed came up readily and grew finely, for a time; but produced an indifferent crop of small roots. The remaining quarter of an acre was allowed to lie till August 5th, when it was carefully harrowed, and on one-half of it I spread seven bushels of a compost (which I prepare every year for raising fodder corn,) consisting of four parts of wood ashes, (taken damp from the cellar,) one part of hen manure and one part of plaster, (thoroughly mixed and suffered to stand ten days before using.) This was harrowed in, the seed sown and bushed in. On the remaining one-eighth of an acre, I spread six bushels of hen manure, well pulverized; and treated as above. This sowing came up readily and the plants grew rapidly, overtaking in size those sown fourteen days previously, in about four weeks, and then fairly "distancing" them. No culture was bestowed on the crop. It was harvested November 10th. On the part where the hen manure was spread the yield was at the rate of 550 bushels per acre; the roots of large, uniform size, and of very fine fibre. Where the compost of hen manure, ashes and plaster was spread, the yield was somewhat lighter, the roots being smaller in size, though finer grained, and better for table use.

I am induced to publish this statement, not because the yield was extraordinary, but to show our farmers, who keep two or three dozens of fowls, how they may make the droppings of the hen roost (commonly wasted) pay a large profit; and with little labor, secure a crop which helps make up the variety of an old fashioned "boiled dish," and helps to graduate for their stock the change from grass to dry winter fodder.

Josiah H. Temple.

Framingham, Nov. 12, 1858.

Big Chimneys.—The chimney at Bolton, England, mentioned the other day, is not the highest in the world, although a hundred feet taller than the Charlestown structure. There is one near Manchester, England, that is 430 feet high, while the chimney shaft of the St. Rollox chemical works, at Glasgow, is twenty feet higher still, being 450 feet high; and a yet larger one is in course of construction at Glasgow, for a chemical manufactory. It is to be 460 feet high, or nearly twice as tall as the Charlestown chimney, which is 239 feet high. In order to secure

its solidity and strength, the constructor is building into the centre of the brick work at every stage of twenty-five feet a malleable iron ring 3½ inches broad, and 7-8 of an inch in thickness. The mortar used is of a peculiar character. The foundation was built with a mixture of Irish lime, ironstone, Arden lime, and sand, forming a cement impervious to damp. The rest of the shaft is to be built with mortar of a similar description, with the exception of the Arden lime.

For the New England Farmer.

CORN AGAIN—ITS SUPERIORITY TO ANIMAL FOOD.

MR. EDITOR:—Your Kennebunk correspondent, K., in your number for October 23, takes occasion to differ, "respectfully," from some of the views I have, from time to time, presented in your valuable columns; especially those which are found in an article entitled "Corn versus Beef." With your permission I wish to review, as "respectfully" as I can, his apparently honest objections; and remove, if possible, his difficulties. This I do the more freely, as, in his objection and animadversions, he represents a considerable proportion of your less scientific but inquiring readers.

He says, "Domestic animals form the basis of all farm improvement." Do they so? and do they form the basis of all garden improvement too? How was it with the first two gardeners? How has it been with the Chinese and with the Japanese of several centuries past—concerning the latter of whom the best authorities tell us that while they are, compared with the other Asiatics, a highly cultivated and progressive people, they subsist almost wholly by means of spade husbandry; not having in the whole empire, with its twenty to thirty millions of people, as many domestic animals as there are in a single township of modern Sweden?

Perhaps he will say, "I do not see the necessity of going back to the days of Adam, nor to the opposite side of the globe; let us have facts nearer our own times, and at our own firesides." Very well; they are at hand.

Rev. Samuel Nott, of Wareham, who owns about an acre of land, and who has had it under high cultivation for (I think) about a quarter of a century, assures me that spading it up well, every year, instead of plowing it at all, with but a very little manure, is found to be the most economical course; and Mrs. N., who is no careless observer, concurs in his opinion. Are domestic animals so very indispensable here?

Mr. Abijah Johnson, of Auburndale, finds subsoiling his old, worn-out lands, the basis of farm improvement. He does not wholly exclude manuring, but he relies chiefly, so far as he relies on them at all, on such manures as are made without domestic animals; as soapsuds, the contents of the chamber, &c. &c.

I have myself cultivated one acre or so of land these twenty years, and with as much success, to say the least, as the average of my neighbors. My grounds have been constantly improving. Yet I never kept a domestic animal in my life, save, occasionally, a cat and a very few hens; nor have I bought much manure. Indeed, what I have bought has been pond-mud, night-soil, lime and leached ashes. I have never bought a pound of any other, except once, a little guano.

Sometimes, indeed, I have found that certain ingredients of the soil which seemed needful to certain crops, were wanting; but by little attention to the discoveries of chemistry, I have supplied them without the aid of domestic animals. And so far am I from believing domestic animal manures form the basis of *all* farm improvement, that I do not believe they ever form its *basis*. At most, they are to the soil, what condiments are to our food; or rather to the stomach and to digestion. Though I might not wholly exclude them, I never would place much permanent reliance upon them. How very evanescent, for example, guano!

And if further proof were needful to show your correspondent his mistake, I have but to refer him to frequent articles in your columns—and that, not from visionary, but highly practical men; such, for example, as that from Mr. French, on the first page of your number, October 30.

Your correspondent next tells us "cattle that are stall-fed are only finished off on corn after they have attained their full size on grass and hay." Grant it; but whence comes the grass and hay; except from land that *might*, at least, to a very large extent, produce corn, or rye, or potatoes, or fruit, just as well as "grass and hay?"

"The same is true," he adds, "with regard to pork, it being raised, chiefly, on the products of the dairy, and refuse articles of the orchard and farm, until fattening time." Now, I have seen a hog, within a few days, that, on being killed, weighed 400 pounds, whose owner never had any dairy to furnish his food. It is, however, true, that he was the scavenger of the family; and that they have a *diseased dainty* as their reward—unless, indeed, they should conclude to sell him to the city people, or exchange him for other and better articles of human sustenance.

If the various considerations which your correspondent has presented *were* sufficient to induce me to change my "figures," the change would by no means be favorable to the views of my opponents in opinion. The owner of the hog weighing 400 pounds, says he cost him over $30. Now, $30 laid out in farinaceous substances, which are much richer in that which nourishes the body, and quite rich enough in carbon for combustion in the lungs, would give us some 1800 pounds of the one, to 400 of the other. This is not, indeed, quite ten to one in figures; but at least ten to one in reality; since pork, in respect of bodily nutrition, is apt to remind one of the Irishman who said his fiddle had music enough in it, but he could not get it out. My brother, who raises some five or six hundred pounds of pork, yearly, for family use, told me, the other day, that his hogs cost him enough to support (so far as mere food was concerned,) his whole family of six or seven persons.

No living man, in the temperate regions, can get much nutriment out of fat pork; and they who, by aid of powdered fern roots or bark intermingled therewith, joined to the force of long habit, get a little nutriment out of fat, in high latitudes, gain but a meagre and miserable support. It is the testimony of Sir John Richardson and other British polar navigators, that Indi-

an corn, when obtainable in the Arctic regions, is better than fat.

Your correspondent says something about the teeth—that those of man indicate a mixed diet. This argument, if it proves any thing, proves that we should eat half grass or hay, and half flesh. Will he, then, adhere to it? Or if man, because he has four sharp-pointed teeth, ought to eat a part animal food, surely the sheep and the camel, that have four sharper teeth than man, ought to eat *quite as much* flesh, fowl or fish, as the latter.

That pork and beef eaters are better fighters than vegetarians, I will not now stop to deny, except to say that the Makrattas, the greatest fighters in India, were the most rigid vegetarians; nor that children of one year old sometimes "choose meat;" nor yet to prove that all the hogs we eat are *diseased* hogs, and all the men, women and children who eat them are diseased, as the consequence. W. A. A.

Auburndale, Nov. 1, 1858.

For the New England Farmer.

ECONOMY IN FARMING.

Mr. Editor:—I was pleased with the recent remarks of your correspondent "Roger," on "neatness in farming." In juxtaposition with neatness is economy in farming. These remarks on neatness led me to reflect on the amount of waste in our farming community.

In the first place, I would notice the waste of time—how many hours are passed to no profit, either to body, mind, or estate. When farm-work is not pressing, time is passed idly away instead of devoting these leisure hours in clearing waste land, collecting and placing under cover wood which has been broken from trees, and thus liable to become rotten. From an ordinary farm, sufficient summer fuel could thus be collected, which would otherwise be lost.

Waste land; how much land is suffered to run to waste on almost every farm. On how many farms do you see bushes and rank weeds by the road fences, perhaps from six to eighteen feet, and thus the stone wall and fences along the farm are hid from view. Bushes are suffered to grow, when a few hours, which are often spent in idleness, would remove, and leave the land free for culture. Stony ground, which is unfitted for cultivation could be made to produce a fine growth of wood, and one inch of land on a good farm would not be left to waste.

In fact, economy and neatness are inseparable, one and the same. Wherever you see a neat farm, be assured the manager of that farm is an economical man; and, whenever you see a slovenly farm, you may rest assured that the manager of that farm is no economist.

These remarks will apply to every department of farming. How many there are who so manage in the feeding of cattle, swine or poultry, as to waste half their food, and consequently their neat stock are never thrifty, their fowls, many of them, at least, are unprofitable, they have eggs only half the season, and not abundant even then. Porkers that might be made to weigh 450 to 500 lbs., weigh little more than half as much as their neighbor's.

Again, look at the buildings of the slovenly and wasteful farmer, if such a man can be called a farmer. A shingle off here, and there a board hanging by one nail—a door with one hinge broken off. I need not quote what the wise man has said in regard to a certain character in his day, "I went by the field of the slothful," &c. It would seem that words need not be multiplied to induce economy and neatness in farming. A word to the wise is sufficient. Economy.

North Leominster, 1858.

Remarks.—These are more than hints—perhaps they may benefit some of us.

MANURING GRASS LANDS IN AUTUMN.

Many of our readers do not seem to be aware that mowing lands, in order to be kept up in fertility and productiveness for a series of years, require some sort of dressing every year or two. They will work hard, and be to great expense to put the land in good order, and to seed it well. They then begin to mow it, and follow it up year after year, taking a heavy crop of hay at first in the summer, and feeding it late in the fall by their cattle. In a few years they find the land "run out" as it is called, and they find it necessary to manure and plow and seed it as before.

Now it is abundantly evident, that much of the running out may be prevented by a little seasonable application of fertilizers, without the labor and cost of plowing and reseeding so often. Your land is a workshop or laboratory, in which certain kinds of raw material, such as manure from the barnyard—or muck or ashes, &c., is manufactured into grass, but it must have the raw material to work up, or your mill will stop.

We have found by our own experience, and by observing the experiments of others, that the best time to put many fertilizers, such as decomposed barnyard manure, or composts of different kinds, and even bone dust and plaster of Paris, is in the fall, before the fall rains commence. By applying them at this season, the coarser particles become disintegrated and mingled with the surface of the soil, and the whole become more intimately incorporated with the earth about the grass roots, not only stimulating them by their nutritive elements, but also affording protection more or less during the winter.

Every one who has a mowing field that is beginning to deteriorate in consequence of the annual cropping, and we nearly all of us have, would do well to put on the dressing as soon as may be now, so that they may be benefited by it, not only during the coming winter, but early in the spring. If you cannot do any better, try a few rods and wait the results.—*Maine Farmer.*

Leaves are Chemists.—Have you ever considered the amount of surface a single tree presents to the atmosphere? the extent of surface of leaves in a field of corn? Measure a leaf—take the area of one side, multiply it by two, (the number of sides,) and that product by the number of leaves on a single tree! This surface is all necessary to the growth of the tree. If you take off a part of the leaves, those which remain grow broader. They separate from the atmosphere and

swallow the food adapted to the wants of the tree. Think of this, reader; here is a suggestion for some interesting pencil-work. You have a pencil and a power to use it. Burn a plant, and how small a portion remains as ashes. Where is the balance? In the atmosphere. Where then does the plant obtain this organic matter for its construction? Not altogether from the atmosphere direct, but when we consider that each square inch of the surface of the leaves of some plants contains from 150,000 to 175,000 mouths, which absorb and assist in preparing the food for the plant, we may form some idea of their importance.

POWERS OF VEGETATION TO RESIST EXTREMES OF TEMPERATURE.

It is most essential to the success of the operations, both of the agriculturist and the horticulturist, that as comprehensive a view as possible should be obtained of the organization of the vegetable kingdom, and of the powers of resistance that it possesses of the extremes of temperature. For although practically he may pass through life without ever even seeing the moss which in Lapland not only lives, but grows beneath the snow, and furnishes the frugal meal of the docile reindeer, and without boiling eggs for his breakfast reposed upon the herbage which we shall presently advert to as growing in the hot springs of the Himalaya mountains, yet the knowledge of such powers of endurance in different families of plants, when combined with other knowledge of various descriptions, connected with the organs of plants, tends immensely (if it does nothing else) to make the inquiring agriculturist cautious and careful in his experiments, and in the deductions which he draws from them.

Hastily-formed conclusions are seldom very accurate, in whatever branch of scientific inquiry they arrived at, and applied to. But in no department of practical knowledge is it more needful to guard against them, than in the prosecution of agricultural pursuits. Slight differences of temperature, of moisture, or of atmospheric change, have frequently been sufficient to confound and to obscure the most carefully conducted experiments. And in the much canvassed, but yet unsolved, problem of the potato disease, we have at this moment unfortunately patent evidence that our present acquirements in agriculture have by no means attained a degree of efficiency, with which we can rest satisfied.

Nothing is more surprising in the study of vegetable physiology than the variation of the powers of endurance of the extremes of heat and cold in different families. And this is the more remarkable, because those powers appear to have little or nothing in connection with the texture of their organization. In reference to the powers of endurance of moisture and drought, it is otherwise, at least to a considerable extent. For we find the *Cacti* family, and many others that are indigenous to climates that have long seasons of drought, are provided with organs that are calculated to retain, as it were, reservoirs of moisture, whilst the organization of their cuticle is such as to lessen evaporation and exhalation from their surface. But in regard to the powers of resisting extremes of heat and cold, many families of plants with organizations of the most fragile texture, are found to have these powers equally; some as to heat, others as to cold.

This is a subject that deserves consideration in connection with the study of climate, and the following description of the hot springs of the Himalaya from Dr. Hooker's Journal, are well deserving attention:

"The hot-springs (called Soorujkoond) near Belcuppee (altitude 1219 feet) in the Behar mountains, north-west of Calcutta, (lat. 24 N., long. 86 E.,) are four in number, and rise in as many ruined brick tanks about two yards across. Another tank fed by a cold spring about twice that size flows between two of the hot, only two or three paces distant from one of the latter on either hand. All burst through the Gneiss rocks, meet in one stream after a few yards, and are conducted by brick canals to a pool of cold water about 80 yards off.

"The temperatures of the hot springs were respectively 169°, 170°, 173°, and 190° of the cold, 84° at 4 P. M., and 75° at 7 A. M. the following morning. The hottest is the middle of the five. The water of the cold spring is sweet but not good, and emits gaseous bubbles; it was covered with a green floating *conferva*. Of the four hot springs the most copious is about three feet deep, bubbles constantly, boils eggs, and though brilliantly clear, has an exceedingly nauseous taste. These and the other warm ones cover the brieks and surrounding rocks with a thick incrustation of salts.

"Conferva abounds in the warm stream from the springs, and two species, one ochreous brown and the other green, occur on the margin of the tanks themselves, and in the hottest water; the brown is the best salamander, and forms a belt in deeper water than the green; both appear in broad luxuriant strata, whenever the temperature is cooled down to 168° and as low as 90°. Of flowering plants, three showed in an eminent degree a constitution capable of resisting the heat, if not a predilection for it; these were all *cyperacea*, a *cyperas*, and an *eleocharis*, having their roots in water of 100°, and where they are probably exposed to greater heat; and a *timbristylis* at 98°; all were very luxuriant. From the edges of the four hot springs I gathered sixteen species of flowering plants, and from the cold tank five, which did not grow in the hot. A water-beetle, colymbetes, and notonecta, abounded in water at 112° with quantities of dead shells; frogs were very lively, with live shells at 90°; and with various other water-beetles."

From the foregoing quotation it will be perceived that the temperature of the hottest spring was 100° Farenheit, which is but little below that of boiling water. And although not so luxuriant as in the cooler springs, yet vegetable life was found to exist and grow in that high temperature. Had a cabbage or a potato been placed by the side of the *conferva* in that spring, it would have been soon cooked ready for the dinner table; and the powers of endurance of the action of heat possessed by a living plant, therefore, can be easily conceived.

With such well attested facts before us, we may well hesitate before we form a decided opinion upon the adaptability of any plant of a new character, that it may appear desirable to intro-

duce as an agricultural crop. It is not possible to judge of many, from the result of two or three trials only. Because, although oftentimes we may be quite right in the view we take of our first experiments, yet it will frequently occur that until by repeated trials we become by experience well acquainted with the constitution of a new plant, we may attribute our success or our failure to causes which, in fact, had nothing to do with either. And therefore we may so be led into error which further experiment would dispel.

That this is so, will be evident to any one who is familiar with the vast changes that have taken place within the last few years in the cultivation of fruits and vegetables. Many crops that some years back were considered to require years (especially in fruits,) of previous care of the plants to produce them, are now produced in less than one. And this with things that have been familiar to the gardener for above an hundred years.

In fact, the agriculturist no less than the horticulturist, who would prosecute his calling with due reference to the guidance of scientific principles, will never assume that he has arrived at a knowledge of the best mode of cultivating any crop. Whilst he will be cautious not to expermentalize without due regard to prudence and to principles, he will nevertheless be ever earnest in the "forward" effort, and will take care that his labors are as steadily directed by his judgment, as his plow is by his hand.—*American Farmer's Magazine.*

THE IMPORTANCE OF ROOT CROPS.

Several of our intelligent correspondents are amusing themselves, in giving expression to their views in relation to *the value and importance of root crops*, in our farm economy. Their opinions —as the careful reader has undoubtedly observed —are widely different. That they are sincere opinions, we can have no doubt—and we have as little doubt that there existed widely different circumstances between the parties, which led to the different conclusions to which they severally arrived.

For many years, our own opinions were unfavorable to the culture of roots as feed for stock; but they were founded more upon the general expression of those around us, than upon investigation and actual production and use of them under our own labor and supervision. When we had gone through with these, we became convinced that we were in error, and that the "general expression of opinion around us," to which we have alluded, had no better basis than the views we had entertained.

The successful culture of roots requires more plowing and harrowing, and preparation generally, than our corn or grain crops, and more care in tending them after the seed is committed to the ground. It is more delicate work—requiring more thought and skill and more exactness of arrangement, and all this is what farmers generally have disliked,—and hence the opinion naturally enough grew up, that the culture of beets, turnips, mangolds, &c. was unprofitable as food for stock.

The discussion of our correspondents has prompted us to look again at some of the statements made in regard to these crops, and we find the highest testimony in their favor in abundance, both at home and abroad.

In the *London Quarterly Review* for April last, is a long article reviewing five or six works upon agricultural subjects, in which we find statements having a direct bearing upon our subject. In speaking of the condition of English agriculture at the close of the eighteenth century, the writer says:—

"The greater number of breeds were large-boned and ill-shaped, greedy eaters, and slow in arriving at maturity; while as *very little winter food, except hay, was raised*, the meat laid on by grass in the summer was lost, or barely maintained, in winter. Fresh meat for six months of the year was a luxury only enjoyed by the wealthiest personages. Within the recollection of many now living, first-class farmers in Herefordshire salted down an old cow in the autumn, which, with flitches of fat bacon, supplied their families with meat until the spring. Esquire Bedel Gunning, in his 'Memorials of Cambridge,' relates that when Dr. Makepeace Thackeray settled in Chester, about the beginning of the present century, he presented one of his tenants with a bull-calf of a superior breed. On his inquiring after it in the following spring, the farmer gratefully replied, 'Sir, he was a noble animal; we killed him at Christmas, and have lived upon him ever since.'"

We have underscored the words "*very little winter food, except hay, was raised*," to show, as one reason, why the cattle were worthy of the description given them.

After speaking at considerable length of the changes effected in the breeds of cattle and sheep, and the light thrown upon these subjects by the investigations of ARTHUR YOUNG, COBBETT, ROBERT BAKEWELL, and others, the writer says:

"But the fattening qualities and early maturity of the improved stock would have been of little value beyond the few rich grazing districts of the Midland counties, without an addition to the supply of food. The best arable land of the kingdom had been exhausted by long years of cultivation, and the barren fallow, which annually absorbed one-third of the soil, failed to restore its fertility. A new source of agricultural wealth was discovered in turnips, which, as their important qualities became known excited in many of their early cultivators much the same sort of enthusiasm as they did in Lord Monboddo, who on returning home from a circuit, went to look at a field of them by candle-light. Turnips answered the purpose of a fallow crop which cleaned and rested old arable land; turnips were food for fattening cattle in winter; turnips, grown on light land, and afterwards eaten down by sheep which consolidated it by their feet, prepared the

way for corn-crops on wastes that had previously been given up to the rabbits."

Under this system, a Mr. RODWELL made the produce of 820 acres of land worth *one hundred and fifty thousand dollars more* in twenty-eight years, than his predecessor did in the same time, under the old system, without roots. This great advance in arable farming took its rise in the county of Norfolk. Again—

"Turnips, which are said by Young to have been brought into farm cultivation by the celebrated Jethro Tull, found such a zealous advocate in Lord Townshend, that he got the name of 'Turnip Townshend.' Pope speaks of 'all Townshend's turnips,' in one of his imitations of Horace, published in 1737. This crop he had the sagacity to see was the parent of all the future crops. Without winter food little stock could be kept, without stock there could be little manure, and with little manure there could not be much of anything else. The turnips were, therefore, employed to secure a large dung-heap, and the dung-heap in turn was mainly appropriated to securing the largest possible store of turnips. This tillage in a circle was as productive as it was simple. The ground, cleaned and enriched by the root-crops, afterwards yielded abundant harvests of corn; and as we have already stated, the treading of the sheep upon the loose soil, while they fed off a portion of the turnips, gave it the necessary firmness. Thus through the agency of turnips a full fold and a full bullock-yard made a full granary. Essex and Suffolk soon copied the method, but they did not carry it so far as in Norfolk; and in many places the turnips were never thinned or hoed, upon which their size and consequently nearly all their value depended."

With a single extract more we will leave this highly interesting and instructive article, hoping at a future time to show equally as decided testimony in favor of root culture, in the practice of our own people.

"In the old days distance operated as a barrier to imitation, and three-fourths of England only heard of what was done in the well-cultivated fourth to ridicule and despise it. When the father of Mr. George Turner, of Barton, Devon, the well-known breeder of Devon cattle and of Leicester sheep, who had learned something in his visits with stock to Holkham, began to drill turnips, a well-to-do neighbor looked down from the dividing bank and said to his son, 'I suppose your father will be sowing pepper out of a cruet next.' Indeed, the whole history of the turnip cultivation affords a characteristic contrast between the spirit of the past and the present. It took upwards of a century to establish the proper growth of this crop, notwithstanding that the wealth of meat and corn which proceeded from it was as plain to those who would open their eyes as that a guinea was worth one-and-twenty-shillings. The first difficulty was to persuade farmers to try it at all; and not one turnip was ever seen on a field in Northumberland till between 1760 and 1770. The second difficulty was to get them to be at the expense of hoeing, insomuch that Young said that he should be heard with incredulity in most counties when he bore testimony to the vast benefits which were derived in Norfolk from this indispensable portion of the process. The third difficulty was to induce them to replace broadcast sowing by drilling, which appeared, as we see, to novices no less ridiculous than peppering the land from a cruet. The bigotry of the farmer cramped the energies of the mechanics whom he now welcomes as among his best friends. The implements, even by the first manufacturers, from the absence of criticism and competition, from the limited extent of custom, and from the want of artisans skilled in working in iron, were, however excellent in idea, both clumsy and costly. The choicest specimens which existed in 1840 have been so altered in execution by cheaper materials and improved workmanship that they can scarcely be recognized."

With the aid of root crops, and that of machinery in our labor, it is not difficult to anticipate the time when our farmers shall labor less, but yet prosper more. The success of the steam-plow on the beautiful and fertile prairies of the West, almost makes real the expression in the fine lines of Mr. Thackeray on the Great Exhibition in England in 1851.

Look yonder where the engines toil,
The Nation's arms of conquest are,
The trophies of her bloodless war;
Brave weapons these.
Victorious over wave and soil,
With these she sails, she weaves, she *tills*,
Pierces the everlasting hills
And spans the seas.

For the New England Farmer.

IOWA—ITS CLIMATE AND CROPS.

We must be somewhere about mid-way between the extremes of dryness and wetness mentioned by Prof. Brocklesby, in his work on meteorology. So rare is the occurrence of a real shower at Lima, in Peru, that it is a source of terror; and when such an event happens, religious processions parade the streets, imploring the protection of heaven for their endangered city. In the interior of Guiana, on the other hand, the sun and stars are seldom visible, and the rains not unfrequently continue for five or six months, with scarcely any intermission.

For the last four weeks, we have had very nearly the same kind of weather as prevails on the Isle of Chiloe, (43° S. lat.,) where "it rains six days of the week, and is cloudy on the seventh."

Early in October we had a sharp frost for two or three nights. For more than a month we have had none; but almost incessant rainy and cloudy weather, with some snow. I picked tomatoes from my vines yesterday, (Nov. 11th,) as fresh as in September. Many seeds germinated, and currant bushes and apple trees started anew in October. To-day, (12th,) it has snowed steadily without any prospect of fair weather for some time to come.

Farmers are about discouraged. In addition to the failure of the wheat, oats and potatoes, we

now have to include the buckwheat, which is nearly or quite ruined by the long continued wet weather. Corn is very good, but most of it is still in the field. Broom corn is also good, and well secured; but there is very little of it raised in this region. The Chinese sugar cane has surpassed all expectation. It was only planted by a few, as an experiment; but proves so satisfactory that thousands of acres will be put in another year. We are daily using the sirup, which is sufficiently good, considering the imperfect means of manufacture, to warrant the confident expectation of its taking the place speedily of our best sirups, at a much lower figure than they can be obtained.

One good result of the extensive failure of the wheat, will no doubt be, to lead the people to try other crops as a staple. And there can be little doubt that some other articles can be made much more productive than wheat has been for a number of years past.

Notwithstanding the hard times, of which we have had rather more than an even share, we have had *great health*, as a State; and have abundant cause for Thanksgiving, which we propose to celebrate on the same day as in Massachusetts. Among other things to be grateful for, our worthy Governor Lowe mentions the remarkable outpouring of the Spirit, "by which the faces of multitudes have been turned Heavenward."

Tipton, Iowa, Nov. 12. M. K. C.

For the New England Farmer.

UNITED STATES AGRICULTURAL FAIR AT RICHMOND.

One of the most attractive implements on the fair ground, to the farmer, was A. P. ROUTT'S patent Drain Plow. This implement makes a furrow a foot deep, two feet and a half wide at the top and four inches wide at the bottom, the sides sloping at such an angle as to insure the drain from falling in by the frost, the whole being perfectly completed at one operation by this plow, or tool. Those who have tried it say it is the very thing for surface draining, which, on wet lands, is certainly very beneficial where underdraining has not been done. The manufacturer resides in Somerset, Orange County, Va. The plow is so made that it opens a deep furrow, turning both to the right and left, and is followed by a heavy iron roller that hardens the earth both on the sides and the bottom of the surface drain, thus doing very handsome work. The price, as heretofore stated, is $25, and with it, a man can, with a good pair of team horses, surface-drain 60 acres of land a day.

A patent subsoil turn plow, combining four distinct features, is a consideration for farmers. First, the combination of the subsoil and turn plow; second, the movableness of the mould-boards, which can be adapted to deep or shallow plowing, as desirable; third, a second bar to which the regulator is attached, which steadies the plow; fourth, a regulator for the depth of the furrow. It may be used to break up the clay without turning it up. It is highly recommended by those who have tried it. The proprietors, Messrs. UTLEY, SMITH and MACFEE, reside in Richmond, Va.

The "Triumph Corn Sheller," patented last April, by A. B. DAVIS, of Philadelphia, and operating on an entirely novel principle, being so constructed and arranged that the power required in driving, is expended in separating the corn from the cob, without any grinding or tearing of the latter. The machine may be fed with a shovel, the cobs passing out at the rear, while the corn falls into a receptacle prepared for it, thus avoiding the work of sifting in order to separate the corn from cobs, &c.

PENNOCK'S patent Seed and Grain Planter is a machine that is highly approved. It is a Delaware product. It has received about 40 silver medals, and took the highest award at the World's Fair, at the New York Crystal Palace. It is a capital thing for planting or drilling wheat, rye, or other grain, which is undoubtedly the true method of grain planting. It is made so as to distribute fertilizers at the time of sowing, if desired. He also exhibited Pennock's Iron Harvester, or new combined Reaper and Mower,—a corn-sheller that will shell 300 bushels a day,—plantation mill, and threshing machine.

The Eagle Mower and Reaper, that took the $1000 premium of the Massachusetts Society, in 1856, the first prize awarded by the Indiana State Agricultural Society, the same year; also the first awarded by the Royal Society of England, Ireland and Scotland, in 1857, was exhibited by A. G. MOTT, agent.

R. C. MAUCK'S Corn Harvester will enable three men and a boy, with one or two horses, to cut and stook 10 acres of corn a day. By this machine the hardest part of the labor is performed by horses. It is a desideratum to growers of Indian corn. Mr. Mauck is a Virginian, residing at Conrad's Store, Rockingham Co.

Another "Old Dominion" invention on exhibition was a Tobacco Press by MUSSER & COLMAN. This machine is of great importance to tobacco manufacturers.

SANFORD'S Reciprocating Portable and Plantation Mill, patented the present year, price $15, for grinding feed for stock and grain for family use; also, plaster, bones, cement, drugs, paints, printer's ink, emery, &c., seemed like a valuable discovery.

DOUGLAS & BROTHERS exhibited a Sugar Cane Mill for making sugar of the Chinese sugar cane.

Thus have I noticed some of the important machines shown at the fair, serving to confirm the intimation before given, that the South is progressing in inventing and manufacturing agricultural machines. I might add other things, but let these suffice. Farm implements and machines are greatly multiplying on every hand. Some of these are very useful, others moderately so, and others still, of little or no economical value to farmers. Such results are incident to the lives and fortunes of inventors and manufacturers. They serve to show, on the whole, that great progress and improvement are making in the furnishing of farm tools and machinery.

The subject for discussion, one evening during the fair, at the "African Church," was, "Farm Implements." LEANDER WETHERELL, of Boston, was invited to open the discussion, which he did, and was followed by Messrs. WATT, of Richmond, SPANGLEY, of Philadelphia, ROGERS, of

Maryland, and others. It was one of the most profitable discussions on the subject I have ever heard.

It was maintained by some of the speakers that utility, strength and durability are too often sacrificed to fancy, and lightness. One speaker scouted the idea of making a good economical mower and reaper to be worked with one horse, stating that no such machine could be expected to do the work so well as a good two-horse machine. He maintained that implements should be well made, and of good stock, which, he added, is not the case now. Poor stock and fancy work supply the market with frail and almost worthless wares.

The demand for low priced tools has done much to bring about this state of things. Demand good implements, made of good stock, and pay the price, and you will get them. If you have any doubts, try it. VIATOR.

For the New England Farmer.

MEASUREMENT OF CORN CROPS.

MR. EDITOR:—The luxuriant growth of Indian corn the present season, brought to mind a communication from the veteran farmer of Plymouth county, on the measurement of this crop; and the best mode of determining the quantity grown to the acre. There is no man whose judgment and experience is more to be relied on than Mr. Allen's. There is no crop grown upon our farms of more importance than Indian corn. I enclose his letter, to be used at your discretion, omitting such paragraphs as do not relate to this subject. Very truly yours,

J. W. PROCTOR.

Pembroke, Feb. 19, 1858.

DEAR SIR:—In reply to your candid inquiries, I will state the rules which have governed the P. Co. Society in its decisions on the measurement of Indian corn from the commencement of its operations. At first the requisition was that the whole crop should be measured in a basket, one basketfull shelled, and the product of the acre estimated by that. This rule soon proved unsatisfactory, and it was then determined that the whole crop should be weighed, calling seventy-five pounds a bushel, and that the weight should be certified by the owner and one laborer. This was the practice for many years, but at length it was thought the measurement should be by a disinterested person, and a supervisor was chosen, who was directed to select and weigh an average rod and estimate the crop accordingly. It is very manifest that in every case there would be some danger of error in judgment, but an agent could not devote so much time as would be necessary to weight he whole crop. The last change, from 75 lbs. to 85 lbs. as a bushel, was made, since I ceased to participate in the doings of the society, excepting occupying the place of supervisor a short time after the death of Mr. Howard. Had I been at the meeting I should have felt bound to oppose the change, because I firmly believe that 75 lbs. in the ear at harvest will make a bushel of shelled corn when ripe for the market, and for this belief have some better evidence than conjecture. At harvest, one year, I put 75 lbs. in the ear into a barrel, covered securely, and let it remain till January, when I shelled and measured and there was a bushel and between one and two quarts. Judge Buel, who was a pretty accurate experimenter, said that the shrinkage of corn from harvest to merchantable condition was 20 per cent. I have no doubt, we may safely buy or sell at harvest, calling 75 lbs. a bushel. There may be, as you suggest, some difference in the ripeness of the several sorts of corn at the usual time of harvest, but if frosts have occurred, which usually is the case, there is no danger of excessive weight in the greenest fields, for the weight will be much lighter there than in the well-ripened field.

It seems to me if all societes would observe one rule in the measurement of corn at harvest, we should soon become less suspicious of the honesty of applicants for premiums, and of the fidelity of agents. Your secretary, Mr. Dodge, wrote to me concerning my premium crop of corn, which has occasioned so many remarks, inquiring how it was managed, expressing his surprise at the amount, and saying he thought a large crop had been reported in that county, but it was much less than mine. You, or some other friend, soon after sent me your Transactions. I looked at the gentleman's statement, and found his corn was planted so much wider apart than mine, that nothing was wanting to make his crop equal or superior to mine but the supply of his deficient number of plants. In my experience, many applicants have failed of obtaining premiums merely from the lack of a sufficient number of corn plants. I would not be understood to say that thick planting secures a great crop, but that thin planting occasions a smaller crop in many instances than we might be justified in hoping for, from the preparations of the field. Corn plants will prosper and mature wherever they can find sufficient food and stand accessible to the influences of the air and the sun. Both the Secretary of the Board of Agriculture and yourself seem to think corn should be dry enough for market before it is measured; can you describe any way in which this can be done, and not leave open a wide door for suspicion or fraud? You probably can, yet it would require more labor and expense than you would think a society should submit to. I think if the Board of Agriculture would recommend to county societies the measurement of corn crops at harvest by some reasonable and uniform rule, the progress of improvement in the culture of this important article would be better understood, and the motives to emulation in cultivation more effectually encouraged.

Resectfully yours, MORRILL ALLEN.

HON. JOHN W. PROCTOR.

BUIST'S ALMANAC AND GARDEN MANUAL, *beside telling you when it rains and when it shines*, and what he has to sell in the way of seeds and implements for the garden, has a great many convenient things to know about making and managing a garden.

☞ The duty on flour imported into Brazil, has been reduced thirty per cent., which is expected to diminish the drain of specie from this country.

FIGURE OF AN AYRSHIRE COW.

The Ayrshire breed of cows is at present gaining favor among the milk producers of New England—we mean those who produce milk for market. How they stand with dairymen who convert the milk into butter and cheese, we do not know; nor do we know whether fair trials have yet been made with them among the dairymen of Western Massachusetts, or in New Hampshire or Vermont. It is generally conceded that they are a gentle race, easily kept, and produce well for the cost of keeping.

In looking over Mr. Secretary FLINT'S new work on "*Milch Cows and Dairy Farming*," we find a portrait of a fine cow of this breed, and with his consent give the engraving and his description of it to our readers. He says:

"The Ayrshires are justly celebrated throughout Great Britain and this country for their excellent dairy qualities. Though the most recent in their origin, they are pretty distinct from the other Scotch and English races. In color, the pure Ayrshires are generally red and white, spotted or mottled, not roan, like many of the shorthorns, but often presenting a bright contrast of colors. They are sometimes, though rarely, nearly or quite all red, and sometimes black and white; but the favorite color is red and white brightly contrasted, and by some, strawberry color is preferred. The head is small, fine, and clean; the face long, and narrow at the muzzle, with a sprightly yet generally mild expression; eye small, smart, and lively; the horns short, fine and slightly twisted upwards, set wide apart at the roots; the neck thin; body enlarging from fore to hind quarters; the back straight and narrow, but broad across the loins; joints rather loose and open; ribs rather flat; hind quarters rather thin; bone fine; tail long, fine and bushy at the end; hair generally thin and soft; udder light color and capacious, extending well forward under the belly; teats of the cow of medium size, generally set regularly and wide apart; milk-veins prominent and well developed. The carcass of the pure-bred Ayrshire is light, particularly the fore quarters, which is considered by good judges as an index of great milking qualities; but the pelvis is capacious and wide over the hips.

A cow-feeder in Glasgow, selling fresh milk, is said to have realized two hundred and fifty dollars in seven months from one good cow; and it is stated, on high authority, that a dollar a day for six months of the year is no uncommon income from good cows under similar circumstances, and that seventy-five cents a day is below the average. But this implies high and judicious feeding, of course; the average yield, on ordinary feed, would be considerably less.

Youatt estimates the daily yield of an Ayrshire cow, for the first two or three months after calving, at five gallons a day, on an average; for the next three months, at three gallons; and for the next four months, at one gallon and a half. This would be 850 gallons as the annual average of a cow; but, allowing for some unproductive cows, he estimates the average of a dairy at 600 gallons per annum for each cow. Three gallons and a half of the Ayrshire cow's milk will yield one and a half pounds of butter. He therefore reckons 257 pounds of butter, or 514 pounds of cheese, at the rate of 24 pounds to 28 gallons of milk, as the yield of every cow, as a fair and perhaps rather low average, in an Ayrshire dairy, during the year. Aiton sets the yield much higher, saying that "thousands of the best Ayrshire dairy-cows, when in prime condition and well fed, produce 1000 gallons of milk per annum; that in general three and three-quarters to four gallons of their milk will yield a pound and a half of butter; and that 27½ gallons of their milk will make 21 pounds of full-milk cheese." Mr. Rankin puts it lower—at about 650 to 700 gallons to each cow; on his own farm of inferior soil, his dairy produced an average of 550 gallons only.

One of the four cows originally imported into this country by John P. Cushing, Esq., of Massachusetts, gave in one year 3864 quarts, beer measure, or about 464 gallons, at ten pounds to the gallon, being an average of over ten and a

half beer quarts a day for the whole year. It is asserted, on good authority, that the first Ayrshire cow imported by the Massachusetts Society for the promotion of Agriculture, in 1837, yielded sixteen pounds of butter a week, for several weeks in succession, on grass feed only. These yields are not so large as those stated by Aiton; but it should, perhaps, be recollected that our climate is less favorable to the production of milk than that of England and Scotland, and that no cow imported after arriving at maturity could be expected to yield as much, under the same circumstances, as one bred on the spot where the trial is made, and perfectly acclimated.

THE MILK BUSINESS.

The *Springfield* (Mass.) *Republican* furnishes the following facts in relation to the supply of milk for that city:

We have made an effort to learn some of the aggregates of this industry—to compare the average quantity of milk per cow in each herd; and to learn the different methods of feeding; all points of curious interest and suggestive value. For this purpose circulars have been addressed to most of the milkmen of this city, of course, with varying success. All have not answered, but enough have done so to give a nearer estimate than otherwise would be possible. There are from twelve to fourteen regular dealers of milk in this city. Not far from 2,000 quarts, or $100 worth, are sold daily through the year. The highest quantity, sold by any one milkman, in the best of the season, so far as known, is 400 quarts daily, and this man, in the average for the year, is put down at 250 quarts. Taking all the milkmen, the average is 166⅔ quarts each daily. To raise this milk requires a herd of about 300 cows, which give, on an average, about seven quarts. The force requisite to carry on this business equals one man for every six cows, or an aggregate of fifty men, summer and winter. The best milkers, generally, are crosses of Short-Horn with Ayrshire and Natives, but good milkers can be found of almost every breed.

The feed that produces the most milk is yet a vexed question. In the opinions received, cotton seed meal, corn, rye and buckwheat ground together, and roots, with rowen hay, have equal prominence. The order of feeding cows varies with different individuals. Some feed roots the first thing in the morning, and others late at night. Some give hay the first thing, and others reserve it till noon. Each feeder gives his practice and reasons with equal freedom—which is a very hopeful system in any debate. Our conclusion is, that the best order is as follows: Wet cut feed, mixed with meal after each milking, with hay and roots between. Neither roots nor grain should be fed upon an empty stomach. In the first case, the milk is more likely to receive the odor of the roots. In the latter the appetite is greatly impaired for other food. No fact is more clearly established than that the flavor and quality of the milk and flesh depend in part upon the quality of the food. Various expedients have been resorted to counteract bad flavors. The English heat their milk, and then add saltpetre to it to prevent the taste of cabbages. The Virginians slice and salt rutabagas, twelve hours before feeding, in order to escape that odor. In this region, regularity in feeding, as to quantity and time, by some is considered sufficient remedy for common turnips. Experience proves that corn and carrots make first quality pork. Cows that give milk require more food in proportion to their bulk than either oxen or horses; twenty-five to thirty pounds of dry hay daily is the usual consumption of farm animals. Of course, if roots or meal are added the consumption will be less.

SWINGING IN THE BARN.

Swing away,
From the great cross-beam—
Through the scented clover-hay,
Sweet as any dream!

Higher yet!
Up, between the eaves,
Where the grey doves cooing flit
'Twixt the sun-gilt leaves.

Here we go!
Whistle, merry wind!
'Tis a long day you must blow.
Lighter hearts to find.

Swing away!
Sweep the rough barn floor!
While we gaze on Arcady
Framed in by the door.

One, two, three!
Quick, the round red sun,
Hid behind yon twisted tree,
Means to end the fun!

Swing away!
Over husks and grain!
Shall we ever be as gay
If we swing again?

For the New England Farmer.

THE ROBIN'S TITLE TO IMMUNITY QUESTIONED.

MR. EDITOR:—In the *Farmer* of Nov. 6th, some one sailing without colors is doubting my sincerity, in respect to my communication regarding the robin. Perhaps the injury sustained by me, caused by the depredation of the robin, may be of more immediate effect than that sustained by my neighbors in their pastures, yet in my pasture land I perceive an injury more lasting, for I find it a slow operation to eradicate the wild herbage, of which the seeds were distributed by the troublesome birds. Did not man have dominion given him over the birds of the air, as well as all things else? Our nameless friend asks the question, "Did not the Power that created the robin endow him with an instinct to sustain life?" I answer, "Yes." Did he not give the same power and instinct to the rattlesnake? then why slay him? Would not that be selfish? Does not the house-fly, that scavenger demanded by the presence of fetid and corrupting matter, have instinct to sustain his life? Did our unknown friend ever destroy them by the use of German fly-paper? Did he ever devise or recommend any plan for the destruction of the onion worm? I have no doubt his life is as dear to him as the robin's, for he received it from the same great source. Do not the insects that prey upon fruits

and other vegetation have as good a right to a livelihood as their destroyer, (as he would have us believe the robin to be,) "notwithstanding the title deeds of the most grasping miser?" Why save the robin, if he is such a wholesale slaughterer of insects that God created and endowed with instinct to sustain life?

The aim of man is or ought to be, progress. Are we not having wiser and better laws in every succeeding generation? Are they now perfect? By no means, and never can be while man is finite. Is it not known that committees draft all our laws? Even they do not at all times see the effects of them in all their bearings; they pass through their usual stages without much debating as to their merits, and frequently with no apparent interest felt in regard to them; then they become the laws of the land. If our laws are perfect, what need of further legislation? for this day our statute-books are voluminous, (he would have us believe,) containing just laws, burdensome to no virtuous and honorable calling. "Those living in glass houses should not throw stones."

I was much interested in the perusal of Mr. Flagg's communication; may not the bird that survived in his imprisonment have had an acquired appetite, a vitiated appetite, not dissimilar to the user of opium, arsenic and tobacco? or may he not require to sustain his nature, some inorganic material, such as phosphate of lime, or some other inorganic matter found on the surface of the ground? Did not that bird find in the wings of those bugs some silica, or a substance akin to it? I have never discovered the robin take any insect from the ground except the angle-worm. He says the extermination of the robin is out of the question, as it would hardly be desirable to sacrifice the interest of all the staple products of agriculture, to preserve a few bushels of cherries.

Is the robin man's guardian angel? Must he starve without him, and the earth become a barren waste? J. S. NEEDHAM.

West Danvers, Nov. 20, 1858.

For the New England Farmer.

ROOT CROPS.

The above is the heading of an article which appeared in the *New England Farmer* of Nov. 6, signed E. E., in reply to an article of D. Needham, on English turnips, rutabaga, &c.

Having raised some 300 bushels of rutabaga turnips this season, and not having had much experience in feeding turnips, I was about to inquire, through the columns of the *Farmer*, as to what stock, and in what manner, I could feed them to the best advantage, when I saw the article from E. E.

I raised the above number of bushels upon 48 rods (or 3-10 of an acre,) of sandy land, and not very highly manured at that, no pains taken to transplant and thin out; hoed them but twice, sowed them the 17th of June. The expense of pulling, cutting off the tops, &c., putting them into the cellar, as follows:—First half-day, with the assistance of a man over 70 years of age, I pulled, cut the tops, and put in the cellar, 100 bushels; the next day, with the assistance of two boys under 16 years of age, I put in 200 bushels in four hours' time. The turnips were large and very smooth, being free from fibers.

I have commenced feeding them to cows, and think they not only increase the quantity, but also the quality of the milk. I also boil them and mix corn and rye meal and feed my fatting hogs, and if the turnips are no other benefit, they certainly improve the food so that the hogs eat it more readily and fat faster than they will upon the meal without the turnips. I hope to hear from others, more experienced in raising and feeding turnips than I am. A. J. DODGE.

Lowell, Vt., Nov. 11, 1858.

EXTRACTS AND REPLIES.

THE BALDWIN APPLE.

I wish you to inform me through the *Farmer* the age of the Baldwin apple. I have of late trimmed a very large tree of the above-named apple, the owner of which says it must have been grafted over forty years ago. It is a Baldwin, as he produced one of the very apples that grew upon it. I had my fears as to the truth of the statement; I think that the apple was known by some other name a long time ago. J. A. F.

REMARKS.—The Baldwin apple has probably been known for about one hundred years—but originally under the name of "Woodpecker," which was abbreviated to the "Pecker" apple. The apple was brought into notice by Col. Baldwin, and received his name.

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EQUESTRIANISM BY LADIES.

"Where so many people may receive so much pleasure at so little personal sacrifice, pray allow them."

This is the comment of an eminent member of the Massachusetts Board of Agriculture, upon the equestrian exhibition by ladies at one of the county shows, in this commonwealth in 1857. What did he mean by this? Certainly not to approve of such exhibitions. He simply meant to speak of it as a harmless foible. Is this the purpose for which $1200 a year is drawn from the treasury of the commonwealth? If one species of vain amusements can be countenanced, why not others? Who will say that billiard saloons are not places of healthy exercise? Grave and reverend seniors should be careful what they write.

Nov. 22.

REMARKS.—We are not at all surprised at such strictures as the above. Our people, especially our farmers, are slow to find fault with what seems to afford pleasure to others. But they have learned that some practices prevail at our county shows which are subverting the principles upon which they were founded, while the number which they please is far from being a majority.

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SWAMP MUCK.

I have a large quantity of swamp muck which can be carted to any part of my farm, a part of which is sandy, and the rest a sandy loam. What

fertilizers will be best to mix with it to form a compost for my sandy lands?

North Lisbon, N. H., 1858. A SUBSCRIBER.

REMARKS.—Barn-yard manure, if you have it. If not, use wood ashes, from five to twenty bushels to the cord. If a clay-bed is convenient, mix a portion of that with the muck in addition to the manure or ashes.

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THE POTATO DISEASE.

MR. EDITOR:—Your kindness in admitting to your columns my queries as to your endorsement of the theories of Mr. Reed and others, as to the cause of the decay of the potato, (commonly called the potato rot,) has imposed on me the necessity of further explanation. In making this, I wish to say distinctly, that I have not had the opportunity to make the microscopic observations spoken of, and therefore have not been able to see, what is not to be seen without the aid of such glasses.

That Mr. Reed and others have found many extremely minute insects, in and about the potato, I cannot doubt, with such evidence as is accumulated on the subject. I have read this testimony with care; but whether the insects are the cause or the consequence of the rot, there is nothing in the evidence to determine.

As our Board of Agriculture have undertaken the investigation, I hope they will not abandon it, until something is made certain.

Truly yours, J. W. PROCTOR.

Nov. 5, 1858.

REMARKS.—No man within our knowledge is more deeply interested in the prosperity of agriculture, or more zealous in the cause, than our correspondent above. He writes with a bold pen, and expresses his opinions without circumlocution, so that if they sometimes lack a little gentleness, we can readily enough impute it to the zeal manifested by him in the cause generally. He puts his hands cheerfully and earnestly to whatever he thinks will benefit the farmer.

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JEFFRIES' PATENT BALL VALVE PUMP.

I would inform your subscribers that I have one of "Jeffries' Patent Ball Valve Pumps" in use, which I like very much; they are manufactured by Mr. George L. Newcomb, in Harbor Street, Salem, who has them for sale, and where one can be seen in operation. I think his price is $25 and $35 for the two sizes of very thorough manufacture. B. P. WARE.

Salem, Mass., 1858. —

POTASH AND COAL ASHES.

I wish to know through the *Farmer* what amount of first rate potash, dissolved, will make a bushel of anthracite coal ashes equal to one of wood ashes in that article alone.

I am aware there is other good fertilizing material in wood ashes, but can't we compound with coal ashes, potash and bone dust, a very good manure for fruit trees? L. C. C.

East Lexington, Nov., 1858.

MILCH COWS AND DAIRY FARMS.

MR. BROWN:—In a late number of the *Boston Cultivator*, I noticed a severe criticism on the late publication of Secretary Flint, on "Milch Cows and Dairy Farming," in which the plates illustrative were strongly condemned. I was astonished to see such strictures from such a source. I had looked upon the editor of that paper as high authority in these matters, and as candid and reasonable in his judgment. For instance, in speaking of the representation of the Oakes cow on the 73d page, he says it looks more like a kangaroo—than like the original. After more than forty years' interval, I cannot bring to mind distinctly the points of that celebrated animal—but until I saw Mr. H.'s criticisms, I thought Mr. F.'s representations gave a fair idea of her. I have compared it with the representation given of her in the sixth volume of the Massachusetts Journal and Reports, while she lived—and do not perceive sufficient variance to condemn the print entirely. What could have induced Mr. H. to speak thus harshly of a publication favorably received by farmers generally? My attention was particularly called to this fact, yesterday, by a complimentary reference to this volume in a "Report on Milch Cows," drawn by Hon. R. S. Rogers, who illustrates his fitness for such a task, by the purely-selected stock of animals on his splendid estate. Has our friend swallowed a file in his late tour, or has he lost his balance among the hills of Ayrshire? ESSEX.

Essex Co., Nov., 1858.

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DISEASE IN POTATOES.

I am not unwilling to be classed with unbelievers, while I have such associates as a major part of the Board of Agriculture, and your intelligent correspondent from West Medford. I know it is generally deemed a reproach to be thought skeptical; but I deem it a greater error, to yield assent upon authority, without sufficient reason therefor. As the Board of Agriculture have taken into consideration the question of the decay of the potato, I hope we shall hear from them a distinct exposition of what is known in relation to it. I am clear in the opinion, that the theories put forth by Messrs. Reed, Henderson, &c., of bugs being the cause of the rot, are not the true cause. J. W. P.

Nov. 1, 1858.

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A TURKEY CROP.

I have raised this year, from five old turkeys, seventy-five. They are now about five months old, and the males weigh from fifteen to twenty pounds each. The old male, (seventeen months old,) weighs thirty pounds, and has gained five pounds in the last seven weeks.

DAVID R. GATES.

New Worcester, Nov., 1858.

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POROUS CHEESE.

Will you, or some of your numerous readers, inform me what the cause is of porous cheese? Is it too much scalding, or not enough? I should be pleased to read any dairyman's opinion on the subject. NEW SUBSCRIBER.

North Ferrisbury, Vt., 1858.

APPLES.

The three varieties sent by WM. F. BASSETT, of Ashfield, Mass., are all new acquaintances. The variety he calls "Russett Sweet," resembles the apple of that name we are familiar with, but has more color, and the skin is smoother and fairer. It is a good apple, but rather dry. The other sweet apple we are not aware of ever having met before, but think it better than the "Russett." The sour apple is also new to us, and from the specimens sent, we can hardly pronounce an opinion as to its merits.

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FINE SHEEP.

I have a pretty good-sized buck of the English breed, one year and six months old, the sixth day of this November, that weighs 230 pounds, and a ewe of the same breed whose weight is 162 lbs. They were sired by the big imported buck of Mr. Baldwin, of Montpelier, which weighs 350 lbs. The ewe has raised me a lamb this year that weighs 94½ lbs. They are cross bloods. The buck is of the Cotswold breed, and the ewes were of part Leicestershire. The buck when one year and nine days old sheared 8¾ lbs. of good clean wool the 15th day of May, and the ewe 6¾ lbs. when one year and fifteen days old. They have had no extra keeping from that of the rest of the flock. JOEL LEARNED.

Waitsfield, Vt., Nov., 1858.

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THE BASKET WILLOW.

In reply to the query of Mr. MULLIKEN, of Lexington, for information respecting the Basket Willow, in the *Farmer* of Nov. 6, we would refer him to Messrs. GEORGE J. & E. A. COLBY, of Waterbury, Vt. They are intimately acquainted with the whole process of cultivating and preparing it for the market.

PASTURE EXPERIMENT PROPOSED.

MR. EDITOR:—There is one experiment I would like to see tried in this State, in the way of pasturage, viz.:—If a farmer has 25 acres of pasturing, let him plow one-fourth of it and sow it with oats, rye or any kind of grain he may choose, and seed it down at the same time with grass, and let his cattle crop all that grows. The next year let him take another fourth and treat likewise, and so until he has cultivated the whole, and then repeat, and my word for it, you would see better stock in your pastures in autumn, and the butcher would not have to carry an extra pair of mittens to put on, that the bones might not hurt his hands, when he has to examine so closely to know if they will possibly do to eat.

Note.—The plan proposed by our correspondent is a very good one where the plow can be used, and it should be done more often than it is. But what shall we do with those pastures which are so rough that the plow cannot be used? Shifting the kind of stock pastured on them occasionally, from neat stock to sheep, and *vice versa*, is a good plan. Sowing on plaster and bone dust is also a good plan.—*Maine Farmer.*

NEW BOOKS.

MILCH COWS AND DAIRY FARMING; comprising the Breeds, Breeding and Management, in Health and Disease, of Dairy and other Stock; the selection of Milch Cows, with a full explanation of Guenon's Method; the Culture of Forage Plants, and the Production of Milk, Butter and Cheese; embodying the most recent Improvements, and adapted to farming in the United States and British Provinces. With a treatise upon the Dairy Husbandry of Holland; to which is added Horsfall's System of Dairy Management. By CHARLES L. FLINT, Secretary of the Massachusetts State Board of Agriculture. For sale by A. Williams & Co., Boston.

Every person engaged in dairy business, should own this book, and read it attentively, as it contains many facts, and abounds with suggestions that must be of value to all who have not already a large experience in dairy matters. We recommend it *as a matter of economy*, because, if studied, it cannot fail to impart facts of more value to most dairymen and dairywomen than several times its cost.

The chapter on the *diseases of animals* is judicious,—the remedies recommended mild and safe, and that upon the *culture of grasses and plants to be used as fodder*, is one of great importance.

The work is printed on fine, white paper, and beautifully illustrated with engravings of various breeds of dairy stock, and with the utensils usually employed in the making of butter and cheese, and a copious index is added for the benefit of those who use it as a book of reference.

If the cotton and wollen goods of our manufactories, as a whole, were no better than the products of our dairies, we question whether the manufacturers would be entitled to the credit of skilful workmen in the production of their fabrics. Perhaps there is no single article brought to our markets, in which there is so much that is indifferent, or decidedly bad, as in the article of butter. It is strange that so much of it is badly made and put up, when the fact is so obvious that *good butter* always brings a high price everywhere.

FRUIT CULTURE FOR THE MILLION, A Hand Book of Fruit Culture; being a Guide to the Cultivation and Management of Fruit Trees; with Condensed Descriptions of many of the best and most popular varieties in the United States. Illustrated with ninety engravings. By THOMAS GREGG. Fowler & Wells, New York, 1858. Price 50 cents.

This is a cheap and useful book for those who think they cannot afford to purchase a larger one. But our opinion is that Downing's *Fruit and Fruit Trees of America* is cheaper at one dollar and fifty cents.

EATING FRUIT.—No liquid of any description should be drank within an hour after eating fruits, nor any thing else be eaten within two or three hours afterwards—thus time being allowed for them to pass out of the stomach, the system derives from them all their enlivening, cooling and opening influences. The great rule is, eat fruits in their natural state, without eating or drinking any thing for at least two hours afterwards. With these restrictions, fruit and berries may be

eaten with moderation during any hour of the day, and without getting tired of them, or ceasing to be benefited by them during the whole season. It is a great wast of lusciousness that fruits and berries, in their natural state, are not made the sole dessert of our meals, for three-fourths of the year; human enjoyment, and health, and even life, would be promoted by it.—*Hall's Journal of Health.*

AGRICULTURE AND HORTICULTURE.

THE TRUE FRIENDS.

BY MRS. LYDIA H. SIGOURNEY.

"They leave no sting in the heart of memory,—no stain on the wing of time."—*Hon. Marshall P. Wilder.*

Brown Ceres, one day with Pomona was meeting
'Neath Autumn's Spiriting smile,
So giving each other a sisterly greeting
They sate down to gossip awhile.

"I hope you're quite well, dear, this elegant weather,"
"How charming the country," they said,
"And how do you prosper," both speaking together,—
"With regard to your business and trade?"

"Look, where the rude thorn-bush and bramble were springing
With fruitage the apple tree bends,
The scythe of the mower at sunrise is swinging,
And the song of the reaper ascends."

"Let us walk hand in hand, for no obstacle caring
Till vines o'er the mountains shall grow;
Its suit of green velvet, the brown heath be wearing
And deserts with plenty o'erflow."

"The gold in its mine, with excitement and wonder
May summon an emigrant band,
And the chariot of Mars, trample on in its thunder
But we're the true strength of the land."

"For us, no lorn wife in her cottage is grieving,
Earth welcomes us both in her prime,
No sting in the bosom of memory we're leaving,
No stain on the pinion of time."

HOW TO IMPROVE CIDER.

The following letter upon preserving cider in a mild form, is from Professor HORSFORD, of Cambridge, to the President of the Massachusetts Horticultural Society, and may be valuable to some of our readers.

We add also, another simple recipe for improving cider, but probably much like the Professor's method.

Cambridge, Oct. 25, 1858.

DEAR SIR:—I beg to inclose a recipe for improving cider. The object to which my efforts have been directed, was to provide a cheap, easily-managed, and perfectly safe agent for arresting fermentation at any desired stage of its progress. The fermentation of the sugar of the cider, it is well known, is due to the fermentation of an albuminous substance which the cider holds in suspension or solution. By fermentation, the sugar is first converted into alcohol and carbonic acid. If the albuminous matter be in great excess, as it uniformly is, its fermentation goes forward to convert the alcohol into acetic acid, and the cider becomes sour. If the quantity of sugar be large, a corresponding quantity of alcohol is produced. When it is not in sufficient quantity it may be added to the cider, and more of the albuminous matter consumed to produce alcohol and carbonic acid, and of course less will remain to convert the alcohol into vinegar.

But if, when the fermentation has been carried forward just far enough to impart to the cider the taste which is most preferred,—when it is sparkling, still sweet, but slightly acid,—if at this stage the albuminous matter be withdrawn, the cider will permanently retain its acceptable flavor.

To accomplish this withdrawal I employ *Sulphite of Lime*—a salt made soluble only by acid, and, of course, quite inert until acid presents itself to the cider. As soon as fermentation produces acetic acid, this salt yields sulphurous acid, which destroys the ferment. This is essentially the agent employed to prevent fermentation in the wine production of France.

The substance I employ settles out at the bottom with the lees, and may be entirely separated from the cider.

The testimony of quite a number of friends who have for the last three years followed the recipe, as well as the experiments I have myself directed, are so emphatic as to the excellence of the result, that I feel justified in submitting to the attention of the Horticultural Society this method of improving cider.

E. N. HORSFORD,
Prof. of Chem. to the Mass. Hor. Society.

RECIPE FOR IMPROVING CIDER.

Let the new cider from sour apples (sound and selected fruit is to be preferred,) ferment from one week to three weeks, as the weather is warm or cool. When it has attained to lively fermentation, add to each gallon, according to its acidity, from half a pound to two pounds of white crushed sugar, and let the whole ferment until it possesses precisely the taste which it is desired should be permanent.

In this condition pour out a quart of the cider, and add for each gallon, one quarter of an ounce of sulphite of lime, known as an article of manufacture under the name of *anti-chloride of lime.* Stir the powder and cider until intimately mixed, and return the emulsion to the fermenting liquid. Agitate briskly and thoroughly for a few moments, and then let the cider settle. The fermentation will cease at once.

When, after a few days, the cider has become clear, draw off and bottle carefully, or remove the sediment and return to the original vessel. If loosely corked, or kept in a barrel on draft, it will retain its taste as a still cider. If preserved in bottles carefully corked, which is better, it will become a sparkling cider, and may be kept indefinitely long.

A DOVE STORY.—A gentleman of this city who has a dove cot at his residence at the West End, relates the following incident as having occurred last week. In the cot were a male and female dove and two squabs. The male squab having died, the elderly dove drove from his nest his female mate, and promoted to his bed and board the young female squab, pecking at and driving from his cot the female dove. Finally, upon one occasion, when the female appeared at the door of the cot, the male sallied out,

pecked at her and drove her away. The persecuted mother flew down to a perch below, where, with her head under her wing she remained for a short time, and then fell suddenly to the ground. The inmates of the house, who had witnessed the proceeding, immediately went out and ascertained that the dove was dead, but no wound was found sufficient to cause death. Possibly she died of a broken heart from the brutal treatment of her false and fickle mate.—*Traveller.*

PLANTS MUST HAVE FOOD.

Vegetation annually appropriates to itself, and removes from the soil, a portion of nutritive principles therein contained, and if they be removed without compensation in some way, barrenness will ensue. Upon the facilities which the farmer may be able to command to secure an adequate supply of food for his crops, his success must in a great measure depend.

Manure is a term of broad application. It was formerly confined chiefly to the excrements of animals, but now has a wider signification, and may be understood as embracing any animal, vegetable, or mineral matter, capable of improving and fertilizing the soil, or of correcting its faults and supplying its defects. Whether artificial fertilizers may or may not be profitably employed, is of far less moment for us to understand, than how to make the most of home resources; the true policy being to increase the productiveness of the farm from within itself. To accomplish this, every source of fertilizing material upon the farm should be made to contribute, and care should be taken that nothing be wasted. Not only should the solid excrement of animals, which too often is the sole dependence of the farmer, be properly cared for, but special efforts should be directed to the liquids also, which are not only more exposed to waste, but possess a superiority over others, which renders their loss irreparable. An eminent agricultural writer says: "When it is considered that with every pound of ammonia that escapes, a loss of sixty pounds of corn is sustained, and that with every pound of urine a pound of wheat might be produced, the indifference with which these liquid excrements are regarded is quite incomprehensible." Another says: "The quantity of liquid manure produced by one cow annually, is equal to fertilizing an acre and a quarter of ground, producing effects as durable as do the solid evacuations. A cord of loam, saturated with urine, is equal to a cord of the best dung. If the liquid and solid evacuations, including the litter, are kept separate, and soaking up the liquid by loam, it has been found that they will manure land, in proportion by bulk, of seven liquid to six solid, while their actual value is as two to one. The simple statement, then, in figures, of the difference in value of the solid and liquid evacuations of a cow, should impress upon all the importance of saving the last in preference to the first."

Excrementitious matter, whether solid or liquid, is by no means our only source of food for plants. Almost every farm possesses an indefinite, and oftentimes a most abundant supply, in the deposits of decayed vegetable matter known as muck or peat. This, to be sure, in its natural condition, is not readily available by plants; they would relish and thrive upon it about as well as we would on raw potatoes, but nevertheless, the food is there, and only needs due preparation to make it both palatable and nutritious. Muck or peat is also of great value, and almost indispensable as an absorbent of liquid manure, and of the gases generated during decomposition.*

In this way it not only proves a most effectual and economical means of preventing waste, but is itself, in so doing, modified or changed so as to be converted into valuable and available manure. Muck, treated with ashes, is found to do exceedingly well. Another mode of treating it, which has many advocates, is, to slake quicklime, with a saturated solution of common salt, and mingle with the muck, in the proportion of one cask of lime to a bushel of salt, mixed with a cord of muck. Thus prepared, it is not a simple mixture of lime, salt, and muck, but during its preparation as stated above, a decomposition of the salt takes place, alkali is liberated equivalent to the ashes used in the other case, and by its action the vegetable food in the muck is rendered soluble, and thus made available to plants.† —*Plough, Loom and Anvil.*

* Too much can hardly be said of the value of dried muck, to be thrown into the stalls, as an absorbent for the double purpose of adding to the value of the manure, and of purifying the air of the premises.

† If convenient, it would be well to prepare this some weeks before applying it, and if turned over a few times, all the better.

OUR EXPORTS.

Our often stated and reiterated assertion, that we do not raise our own food, is true,—importing, as we do, corn, and wheat, and flour, beef, and mutton, and pork; while the agricultural capabilities of our soil are such, that with only a little more intelligent farming, our home production of the very things we import might be vastly increased; perhaps so that the exports would more than counterbalance the imports; and this without involving the employment of much more labor or capital, or even mooting the question whether these are the most profitable things we can raise. Yet we can learn many a useful lesson from the exports of our State and neighboring region.

This year the apple crop attracts most attention among our exports, for we have been favored with comparative abundance, while the general crop of the country is next to nothing. Sloop-load after sloop-load has floated down the river, and the cars have taken many more. Speculators have gone through the land, and many apples have been engaged at moderate prices, before the market price became settled. This practice of selling to speculators is generally well enough under our present system of doing things, though we hold that the ware-house system, wherever practicable, should be employed. Speculators and their agents will, if held to it, generally offer all that they can afford to give, and, if the risks and expenses of marketing are taken into the account, they usually leave themselves a small enough margin, and offer more than the small farmer can get for his crop, if he should market it himself.

We have often alluded to the Golden Sweet

apple as our most profitable sort for shipping. The demand for winter apples has been such that this year the Golden Sweet crop is quite thrown in the shade. The market is still active, and will continue to be, for sometime, we presume, constantly advancing prices, for good, sound winter fruit.

Potatoes have long been a prominent article of export, probably in value this far exceeds any other. The towns which particularly enjoy this trade and make preparations for it, are those situated upon tide-water. We cannot come at any reliable estimate of the quantity or value of potatoes annually exported. It will be larger than usual this year. Our imports in this line are small in comparison, if we do not include sweet potatoes. In early spring considerable quantities of Bermuda potatoes are imported, at a cost of two to six times as much, bushel for bushel, as we can get for those we export.

Certain localities also derive great profit from certain peculiar articles of export, for instance: Stonington, and some towns in its neighborhood, export poultry in great quantities; Hartford and Middlesex counties in our own State, and the river counties in Massachusetts, export tobacco, both in the crude state and manufactured, in value to a very large amount; Wethersfield has long been famous for its speciality, onions, and should now be equally so for garden seeds, for these enterprising seed gardeners send their precious crops by tons almost to all parts of the Union.—*Editorial, in Homestead.*

LIGHT IN STABLES.

Stables should be so constructed, by the insertion of windows in various parts of the building, that they should be *"light as day."* A *"dark"* stable is only a suitable *black hole,*—prison-house for such a vicious specimen of the equine race as the notorious *"Cruiser;"* it is also the very worst location for any kind of animal. Sir A. Nylie (who was long at the head of the medical staff in the Russian army) states that cases of disease on the dark side of an extensive barrack at St. Petersburg, have been uniformly, for many years, in the proportion of three to one, to those on the side exposed to a strong and uniform light. Humboldt has also remarked that, among bipeds, the residents of South America, who wear very little clothing—thus allowing the cutaneous, as well as the orbital surfaces, to receive a free ray of light—enjoyed immunity from various diseases which prevailed extensively among the inhabitants of dark rooms and underground locations, and so excellent an authority as Linnæus contends that the constant exposure to solar light, is one of the causes which render a summer journey through high northern latitudes so peculiarly healthful and invigorating. Dr. Edwards has also remarked that persons who live in caves or cellars, or in very dark or narrow streets, are apt to produce deformed children; and that men who work in mines are liable to disease and deformity.

Light, therefore, is a condition of vital activity, and in view only of preserving the sight of a horse, it is absolutely necessary that while he be the habitat of the stable, his optics shall have free access to the sun's rays.

If a horse was in the same condition as a polype, with no organ of vision, who shuns light, a dark stable might prove to be his earthly paradise, but as the horse has *special* organs of vision, evidently susceptible to the influence of light, and the integrity of his organism, or a part of the same depending entirely on the admission of light, it is absolutely necessary that stables should be constructed accordingly.—*American Veterinary Journal.*

ERGOT AND HOOF AIL.

FRIEND HARRIS:—In my last communication for the *Cultivator,* (June 1st,) I mentioned having purchased five head of cattle, diseased from eating the ergot of hay, for the purpose of experiment. Three head were considered hopeless, one old cow was much enfeebled, scarcely able to rise, and most of the time refused to set one hind foot to the ground. Two two-year old steers, much shrunken in muscle and bowels, and very lame. Two one-year old steers not quite so bad. I commenced treating them all with diuretics and alteratives, medicines internally, and applying antiseptics to the lame feet. I used different articles of the same properties on different animals with the same results. The cattle all soon exhibited a favorable change of symptoms, which continued until they were turned to grass, since that time they have done as well as any other cattle in the same herd. Nearly all lost one, and some both shells of the hoof off one foot, but not until a new one had nearly grown out. They all appeared to feel well, and playful as any cattle after treating them ten days, lameness excepted.

It has been stated in the prints that the ergot is the cause of cows casting untimely calves. This is not my experience; on the contrary, all the calves of such diseased cows appear healthy although not strong, and have taken the milk up to the time of the death of the mother, without inconvenience. Many new ideas have suggested themselves to me while treating the above cases; one I will here suggest for future observation: Does the ergot so affect the urinary organs, that the urine, coming in contact with the hind feet, causes gangrene and sloughing of the same? It has been observed that those cattle that run out to stacks, and not stabled, were less liable to lameness, although their systems suffered equally. Those that run out appear to be more affected in the nervous systems, stiffness of the joints, &c.

I have had opportunities of knowing that the ergot is more abundant than usual in all the northern counties in Ohio. I have seen several small meadows that I would not think of cutting for fodder. However, the people are mostly aware of its existence and its effects on cattle; some, no doubt, will be careless, others indifferent, and others over nice respecting the use of it. This must necessarily be the case as long as some are trying to investigate, and apprise the people of the danger, while some of our learned scientific M. D.'s deny its bad effects on cattle. Some of us, if not all, are certainly behind the times. This matter should have been settled years ago; however, caution is advisable at this time of gathering in our hay. We would suggest the leaving of the worst spots, threshing before

feeding, if bad, and salting the hay, when put in, with nine parts common salt and one part saltpetre; also, salting cattle thus exposed, with a composition of salt, wood-ashes and sulphur, frequently through the winter, and if stabled, keep the floor as clean as possible.—W. PIERCE, V. S., *in Ohio Cultivator.*

RIVER COTTAGE.

JOEL NOURSE, ESQ.,—*Dear Sir:*—The express has just brought me a very pretty picture of *River Cottage*, the place where the Editor of the *New England Farmer*, escaping from the turmoil of city life, is accustomed to enjoy his *otium cum dignitate*, setting us, at the same time, an example of good taste and good husbandry. The sketch, I understand, is to go into the *January* number, and if you can somehow arrange with the printer, while the editor is out on his farm, to slip into the number what I am writing, perhaps his modesty will not be very painfully shocked, and our readers may be enabled to find more in the picture than can be seen at first glance. You will see, before long, that I know something about River Cottage, and the people that dwell therein.

To write a perfect history of any event, it has been said, that it is necessary to begin with the garden of Eden, but for the sake of brevity, we will omit some of the "first causes," and come down to about a dozen years ago, when our friend, after several years' residence in the wicked city of Washington, departed therefrom, like righteous Lot out of Sodom, determined to seek in some spot nearer the rising sun, the realization of his life-long dreams of happiness on a New England farm.

More fortunate than the good man of old, he left no pillars of salt to mark the spots of looking backward in the journey, but brought his small household, *fresh* as ever, back to their native hills. And then, to adopt the style of a modern novel-writer, one beautiful spring morning, two travellers might be seen slowly wending their way among the green hills of the Bay State, in "a one-horse shay," stopping ever and anon, to take an agricultural survey of some field or meadow, some vine or fruit tree, some Shorthorn or Devon, or, perhaps, to make thorough examination of a farm advertised in the papers as "suitably divided into mowing, tillage and pasturing, with uncommon school and gospel privileges."

In these two travellers, the discerning reader will not fail to discover, with very little assistance, the present editor and his humble associate, the one a gentleman in search of a farm, ardent in the faith that he could take off his coat, work all the year like a day-laborer, make a first-rate living, and be perfectly happy on a New England farm,—the other painfully dubious whether his companion's agricultural zeal would not outrun his discretion and his purse, and *land* him so high that he would never get comfortably off!

"What do you sell from your farm?" was the test question of profit or loss. Every body knows what a farmer must buy, such as clothing, groceries and implements, and that he must pay taxes and doctor's bills, and a thousand incidentals in cash, and these almost any one may estimate. If, then, the farmer does not sell enough to pay these expenses, he is running in debt. It was, usually, pretty hard work for the man who wanted to sell his farm, to furnish the items of sales from the produce of it so as to bring out a living balance.

So we looked the State over, and made no purchase, and the next thing I knew, this individual, whose interests I had guarded with such watchful care that he could not begin to buy any farm we had examined, had bought his present residence, without even the compliment of asking my advice!

Of course, I was determined not to approve of a step so inconsiderate, and when I accepted an invitation to look at the purchase, it was with a fixed resolve to withhold my judgment of disapproval, and not to find much to praise.

The cottage and twenty acres of land was purchased in April, 1848, and, except to the eye of faith, it was rather a hopeless establishment to be called a farm. There was the house, to be sure, new, and in much the same style as now, a pretty, snug, convenient dwelling. Then there was an old tumble-down barn, good for nothing but fire wood, and a little mean shed. The land was mostly up-hill or down-hill, and where there was no ledge, there were round stones in abundance, varying in weight, from one to twenty tons. The last owner, who was a paper-hanger, had set out some fruit trees, which were struggling along at a poor dying rate, and had grafted a few of the old apple trees. The land was run out, to the lowest ebb, and its chief recommendation seemed to be that "the oldest inhabitant" could remember when it bore sixty bushels of corn to the acre, and other crops to match. The farm then cut hay enough for two cows and a horse, and produced about twenty bushels of cider apples, by way of fruit.

Now, agriculturally speaking, that was not much of a farm,—but there was another side to the picture, which, after all, is worth looking at. You have seen a young man, sometimes, who had thoughts of marriage. He determines to do the thing in a rational, considerate manner. He will find some discreet girl, who understands housekeeping and accounts, who is sober-minded, and perhaps has a little property of her own, and ar-

range matters on a fair business basis,—but the next thing you know, he is engaged to some little sentimental school-girl, with apparently only poverty and pretty looks and ways for her portion. Be patient, and the application will be seen.

We walked up on to the hill behind the cottage, on to the bald ledge, which commands a view of the distant hills, and of the beautiful quiet meadows through which the Concord, the river of harmony, gently flows. Here, on the verge of this rock, on the memorable 19*th of April*, 1775, were "the rebels" watching the progress of Earl Percy's troops up to the bridge, whose abutments may still be seen, and there, where the granite shaft rises by the further river's bank, among the trees, the British soldiers received the fire of the brave farmers who had made their stand for freedom and their homes, and there was shed the first British blood of the Revolution.

"By the rude bridge that arched the flood,
Their flag to April's breeze unfurled;
Here once the embattled farmers stood,
And fired the shot heard round the world."

Driven back in disorder, the flower of the English army, attacked from behind fences, and woods, and buildings, slowly retraced their weary eighteen miles, to Boston. In a field in view from the spot where we stand, some of the cannon, which the soldiers came up to destroy, were placed in the open furrow, and buried by the plow. And there, beyond the battle-ground, is the "Old Manse," of Hawthorn's tales, and in the village lived the good old man who went on a mission of freedom to Charleston, and was, to the eternal disgrace of that Southern city, compelled to flee from it for his life. Emerson's home is here, and his pen and the pens of Channing and Thoreau have made classic ground of the shores of the Concord and the Assabet.

And so, after all, our friend had given way to sentiment and imagination, and had paid his dollars for revolutionary associations, for beautiful views, and the good society of one of the best of New England towns.

And now, when ten years have passed, our sober verdict must be, that it was money well expended. Glancing again after our young friend who married for love, we shall most likely find him, ten years after, a happier and a more prosperous man than he who married from prudential motives. He has worked hard, but hopefully, and of his young dreams, he has wrought out a reality which is not a disappointment. An "Angel in the House" has made his home more than earthly; a "home where the heart is," and that is better than a palace.

Ten years have changed the scene at the cottage. Various duties of a private and public nature have claimed its owner's attention, but the centre of all has been Home. Slowly, year after year, the scene around it has been wrought into the proportions with which imagination clothed it from the first.

A large and convenient barn has been built, with cellars under the whole extent. The huge boulders have been blasted and built into walls, wet places have been tile-drained and made fertile, several acres of apple trees have been set out and already brought into bearing, and the gardens are filled with pears and cherries and plums and grapes of the choicest kinds. Sixteen acres of land have been added to the farm, and it now winters a dozen head of cattle and four horses. The birds find none but friends in these grounds, and you see in the picture, how they are clustering as doves at their windows, and the bees, that never will work for any person who does not give away part of the honey, are busy all the summer long, with their labors. But that is all matter of fact.

Do you see that elm tree, in front of the house, around which a vine is twining? One cold winter day, about nine years ago, the editor and the writer hereof, with some half dozen yoke of oxen and men to help, hauled that same tree about half a mile with a ball of frozen earth of half a dozen tons weight, and set it where it now is. It has grown finely, and as a mere tree, is valuable, but when we look at it with the associations of bygone days, it takes its position with the battle monument. Like Tennyson's "Talking Oak," long may it stand the guardian of the place,

"And flourish high with leafy towers
And overlook the lea,"

recounting to future generations stories of the prospered loves and realized hopes of the cottage inmates.

And so our friend has wrought his life into his Home. The helping hands of kindred and family have aided to adorn its surrounding grounds. Within, a new life has recently been added to the family group, and the child's prattle reminds us that a third generation is begun, though the grandsire's raven locks tell us that time is dealing gently with him, or rather that he has taken this second degree somewhat earlier in life than is usual.

And now with this picture before us of the pleasant home of one who is doing all he can to improve the homes and the hearts of others, and to make the earth more fruitful and beautiful, let us unite in wishing a Happy New Year to the inmates of River Cottage. With the like wish for yourself, I remain your friend,

HENRY F. FRENCH.

Exeter, N. H., Dec., 1858.

For the New England Farmer.

THE MUCK BED, AND ITS FUTURE PROSPECTS.

MR. EDITOR:—Twenty-five years ago, the low lands in New England were a very different affair from what they now are. They were then considered great useless affairs, good for nothing, unless for growing Tamarack poles and black ash basket timber, which could be obtained only, as people then thought, in severely frozen times in winter, or, when excessively dry in summer. Every spring, somebody's cattle got mired on their margin, in their exertion to grasp the first green tuft of wild grass, and then, when the animal was once ashore, what wishes that the swamp would sink into a clear pond of water.

Times change. The market for wood increases, and the swamp is, on a cold winter's day, full of the music of axes. Tree and shrub suffer the same fate. When the sun returns on his northern visit, he sends searching rays of light and heat into the hitherto impenetrable moor, to scan the changes winter has wrought upon its products. The bogs shrink, and the quagmires evaporate under his penetrating glances. Cattle no longer mire there, and tall grass and weeds wave luxuriantly, to tell that deep fertility gathers at their roots. What a beautiful lesson to man, of the value of the old, deprecated swamp! Fertility, strong and durable, lies in its cold bosom.

The first time we ever heard of the application of muck as a manure, was many years ago, when we saw an individual going two miles to a swamp to get a load for his garden. He described his course of management as follows: The muck, with some three or four bushels of ashes to a load, was allowed to lie only a day or two to dry. The compost was then put under cucumbers and spread for a top-dressing on radish beds, when prepared for the seed. No insect destroyed plants sown or planted on lands thus prepared, and they grew with peculiar freshness and vigor. Its value for the kitchen garden was, by one experiment, placed beyond a doubt.

In passing through the Shaker settlement in New Lebanon some autumns since, we saw some fine beds of compost of which muck was the base, and in the same field, men were employed in opening holes five or six feet square. Subsequently we passed that way, and found apple trees standing where these holes were opened, and that the compost had been liberally applied around the roots of those trees in setting. These trees now show for themselves, showing the growth and vigor of trees in a new and favorable soil.

Equally favorable results from the application of muck have been noticed in other places and circumstances. Still, with oceans and continents of it in every neighborhood, and on almost every farm, the agricultural community has been slow to adopt its use.

But a new era is fast opening in this matter. The summer and fall of 1858 have been favorable to the progress of farm labor in general, and it may be, farmers have had more time than usual to turn aside from the hitherto usual routine, and work out improvements. At any rate, it is a pleasant certainty, that a vastly increased quantity of muck has been taken to the uplands for composting, over that of any past year, for now, almost every farmer has a good pile, and many three or four stout piles. This is but the beginning of progress in the matter. Another year will bring them a full reward for all their labor and cost in the matter, and yet good effects will be in store for years to come, and the effect once seen, extra exertions will be made in successive years to increase the quantity annually, until the uplands shall have been well fattened from the richness of the cold, wet, miasma-breeding swamp; and hereafter, when the farmer goes to purchase land, one of the earliest inquiries will be, *is there a muck bed on the place?* a consideration next in importance to the supply of wood and water; for a very great proportion of the future agricultural fertility of New England lies in her now profitless swamps and quagmires.

Reader, we fully anticipate the exclamation you are about to utter. We expect, as a matter of course, to be denounced as visionary, eccentric, and all such pretty things. But what then? We predicate our opinion from facts that already exist; that greater and more astonishing facts will, from similar causes, develop themselves, not in a year, or it may be not in a decade, but in the course of sure and untiring progress, with the assurance that he who labors first and most earnestly, will earliest reap the reward. W. B.

Richmond, Nov. 23, 1858.

For the New England Farmer.

MATERIALS FOR ROOFING.

This is the subject of an article in your November number, and while I cheerfully agree with the author, so far as he compares slate with any or all other materials for roofing, in this climate, (New England,) when he takes into account expense, durability and security from fires, and while I also agree with him in his comparison between the slates of Vermont and those of Maine, New Jersey, Maryland, Pennsylvania, &c., yet I find him in error when he settles down to compare the slates of Vermont. There is no question but that poor slate will absorb more water than good slate, neither is there any doubt but that a soft, poor quality of slate stone, requires a greater thickness, and consequently much greater weight than a moderately hard stone of pure quality. I am well acquainted with the slate made at sixteen different quarries, all of which are within a range of four miles from the railroad station at Hydeville, Rutland Co., Vt., of which the Glen Lake and Eagle, (which your correspondent asserts are the best,) are a part. The Eagle slate are a good slate, weighing, on an average, 700 pounds to the square. The Glen Lake slate average, in weight, about 580 to the square. There is another kind of slate far superior to either of these two, in my estimation, so far as uniformness of color, thickness and strength are concerned. These slates are made by the Forest Slate Company, but in the immediate vicinity are better known as the "Humphrey slate." They are of a uniform purple color, split true, and the stone is of such purity that there is no difficulty in spliting the slate all of one thickness. Many of these slates, I am told, have been made during the past season in Massachusetts, at and

near Springfield, North Adams, Chicopee, &c. The average weight, per square, is 560 pounds. Without the fear of contradiction I have never seen, either in the Welsh yards of Boston, or other places, or in the slate yards of Vermont, as beautiful piles of slate as I have repeatedly seen at the yards of the Forest Company, at Hydeville. There is no reason why these slates cannot be delivered in Boston or Charlestown at six dollars per square. A SUBSCRIBER.

November, 1858.

FARMERS' CLUBS.

The constant attendance upon the meetings of a Farmers' Club for six months in a year, through several years, and a constant watchfulness of the opinions and practices of those who have been associated with us in such a club, give us a high opinion of their usefulness.

A correspondent from Hopkinton, Mass., writes us as follows:—"As this is a favorable season in the year for the formation of Farmers' Clubs, and especially as my neighbors are agitating the subject, I wish you would say a few words in regard to the usefulness of such institutions, and also in regard to the formation and manner of conducting the meetings of a successful Farmers' Club. And I should like to hear from those who are connected with clubs in different parts of the State."

In response to this appeal, we cannot urge upon our readers with too much earnestness the importance of forming clubs for the discussion of all matters relating to the farm.

Now is the appropriate time—suffer it not to pass unimproved. You will find amusement, improvement, and *capital*, in its deliberations, which you cannot now appreciate. Form the club, and be determined to take an active part in it, and you will find your thoughts ranging in new and delightful fields through another year. Meet at your own dwellings, and thus while you are interchanging civilities with each other, you will save all expense of hall hire, fuel and lights.

The following is a suitable form of a constitution:—

CONSTITUTION.

ART. 1.—This Association shall be styled *The ——— Farmers' Club.*

ART. 2.—Its officers shall be a President, Vice President, Secretary and Treasurer, who shall be chosen annually by ballot.

ART. 3.—The President shall preside in all meetings of the Club, with power to preserve order, appoint Committees, and assign topics for discussion.

ART. 4.—In the absence of the President, all his powers shall be exercised by the Vice President.

ART. 5.—The Secretary shall keep a record of the proceedings of each meeting, which shall be read by him at the next subsequent meeting. He shall preserve all reports of Committees, and conduct whatever correspondence shall be ordered by the Club.

ART. 6.—There shall be at each meeting a discussion upon a topic previously announced, which shall be commenced by four members designated at the preceding meeting by the presiding officer; and such other exercises as the Club shall deem proper.

ART. 7.—There shall be in the Club twelve Standing Committees:—One on Manures; Hoed Crops; Root Crops; Grain Crops; Grass Crops; Live Stock; Farm Buildings and Farms; Farming Tools; Reclaiming Waste Lands; Garden Fruits; Ornamental Gardening; Fruit and Ornamantal Trees.

ART. 8.—Select Committees may be appointed as the exigencies of the Club may require.

ART. 9.—Each Committee shall make report in writing, from time to time, as the Club may order, and the reports so made shall be at the disposal of the Club.

ART. 10.—Any person may become a member of this Club by paying one dollar to the Treasurer.

ART. 11.—The Annual Meeting of the Club shall be holden on the first Monday of November of each year, for the election of officers; and all officers to hold over until new officers are elected.

Aside from the agricultural information that may be gained by such association, it will make families of the same town better acquainted with each other, excite a bond of sympathy and interest, and promote those delightful social relations which ought always to exist among a rural population. Merchants, manufactures and mechanics have their meetings to discuss their business affairs and lay down some common platform or rules by which they may be guided, and in this way they strengthen each other's efforts, and profit by each other's example. In the language of the *Working Farmer*, we say, "take your sons and workmen to these meetings, and they will learn to respect an employment which calls into active use the talent of all. If you have a sick animal, you may have advantage by the experience of all your neighbors, and probably save the life of the animal. If you have excess of crops, such as are usually used on the farm, or are short of others, may you not at such meetings learn where you may sell or exchange? Do not such meetings tend to soften asperities, cement friendships, and do away with peculiarities of temper, which always occur with men who work alone? We would sooner forget much of our reading, than to lose the recollection of such pratical improvements as we have been acquainted with at farmers' clubs."

LARGEST YIELD OF CORN ON RECORD.—A correspondent writing from Vanderburg county, Indiana, informs us that at the State Agricultural Exhibition a silver pitcher was awarded for the best *five* acres of corn. The award was made upon the decision of three disinterested men in

each town, who examined the corn growing in the fields, and measured one acre of each plot. They then made oath to the yield of the single acre, and of the whole five estimated from the acre actually measured. The award made, under oath, was for 857½ bushels of shelled corn on five acres, or 171½ bushels to the acre.

If this has been excelled at any other time, or in any other place, we shall be glad to hear of it. Till we do, we shall put VANDERBURG COUNTY, INDIANA, at the head of the corn column—unless we hear of some mistake in the above report.

For the New England Farmer.

"POTATO DISEASE."

MR. EDITOR:—For several years past, I have made it an almost invariable rule to omit the reading of any article in your paper, if its heading indicated that it treated of the "potato disease,"—more especially if it professed to expound the cause of the disease and prescribe a remedy. There have been such multitudes of various and contradictory causes put forth, each claiming to be the certainly true one; such a variety of infallible recipes for the prevention and cure of the plague, that I am ready freely to acknowledge myself a skeptic in regard to ninety-and-nine-hundredths of them. An inquiring mind is an object of my especial respect; I would not discourage any one from the most searching inquisition into any of the wonderful and interesting works and ways of nature around him. It has often happened that important discoveries have been made for science, by those belonging to what is called the unlearned class; and even if no important fact, before unknown, should be brought to light, yet the habit of a wide awake observation of what is going on around him, is of incalculable importance to the individual, as a means of giving activity and strength and clearness to his intellectual faculties, and of improving the manhood of the real man. But I would ask that their discoveries be not published to the world as absolute verities, till they have been tested under different circumstances for several seasons, with a single and sincere desire to get at the truth, with no bending of facts to the support of favorite preconceived theories.

I did not intend to make so long an introduction to my story. I merely intended to say, that I was, last spring, induced to read a letter from an English farmer, introduced to your readers by Judge French—and they will doubtless all agree with me that what he is willing to recommend will generally be found worthy of a careful consideration. This Englishman's letter gave a detailed account of planting potatoes with a pea inserted in each one, and the result was the absence of rot in those so planted, while others, planted without the pea, in the same or adjoining fields, were badly affected. (I write this from my recollection of the letter, and may not be exactly correct.) This had, at first sight, the aspect of an empirical remedy; but my confidence in the Judge's character for judicious caution in his statements, led me to try the experiment, but in a modified form. Instead of cutting the potato and inserting the pea in it, I merely planted two or three peas in each hill. This was tried with about a half peck of chenangoes, a variety that has so invariably suffered badly from the rot, that I had not intended to plant them again; and the result was almost entire freedom from disease among them, though the varieties that I planted for my main crop were more than usually affected. How the pea-vine operated, if it had any effect, is not for me to say. Perhaps it might be by absorbing into its own tissues some element in the atmosphere that is deleterious to the potato; perhaps it exhales elements, that, combining with the surrounding air, so affect its condition as to make it suitable and wholesome for the potato. But, before theorizing extensively on the how, perhaps it is best to ascertain if it has any effect. This is not put forth as a certain remedy; it has not been sufficiently tested. I intend to try it on a larger scale next year. And if any one of your readers has perused this article, I hope he will assist in giving a fair and thorough trial of the proposed remedy under different circumstances, by carefully observed experiments, and note the result. MINOT PRATT.

Concord, Nov. 27, 1858.

NIGHT-AIR.

During the months of September and October, throughout the United States, wherever there are chills, and fever and ague, intermittents, or the more deadly forms of fever, it is a pernicious, and even dangerous practice, to sleep with the outer doors or windows open; because miasm, marsh emanations, the product of decaying vegetation—all of which are different terms, expressing the same thing—is made so light by heat, that it ascends at once towards the upper portion of atmospheric space, and is not breathed during the heat of the day, but the cool nights of the fall of the year condense it, make it heavy, and it settles on the ground, is breathed into the lungs, incorporated into the blood; and if in its concentrated form, as in certain localities near Rome, it causes sickness and death within a few hours. The plagues which devastated Eastern countries in earlier ages, were caused by the concentrated emanations from marshy localities, or districts of decaying vegetation; and the common observation of the higher class of people was, that those who occupied the upper stories, not even coming down stairs for market supplies, but drew them up by ropes attached to baskets, had entire immunity from disease, for two reasons, the higher the abode, the less compact is the deadly atmosphere, besides, the higher rooms in a house, in summer, are the warmer ones, and the miasm less concentrated. The lower rooms are colder, making the air more dense. So, by keeping all outer doors and windows closed, especially the lower ones, the building is less cool and comfortable, but it excludes the infectious air, while its warmth sends what enters through the crevices immediately to the ceilings of the rooms, where it congregates, and is not breathed; hence is it that men who entered the bar-room and dining-saloons of the National Hotel, remaining but a few brief hours were attacked with the National Hotel Disease, while ladies who occupied upper rooms, where constant fires were burning, escaped attack, al

though remaining in the house for weeks at a time. It was for the same reason that Dr. RUSH was accustomed to advise families in the summer time, not being able to leave the city, to cause their younger children especially, to spend their time above stairs. We have spent a lifetime ourselves in the West and extreme South, and know in our own person, and as to those who had firmness to follow our recommendation, that whole families will escape all the forms of fall fevers who will have bright fires kindred at sunrise and sunset in the family room. But it is too plain a prescription to secure observance in more than one family in one thousand. After the third frost, and until the fall of the next year, it is an important means of health for persons to sleep with an outer door or window partly open, having the bed in such a position, as to be protected from a draught of air. We advise that no person should go to work or take exercise in the morning on an empty stomach; but if it is stimulated to action by a cup or a crust of bread, or apple, or orange, exercise can be taken, not only with impunity, but to high advantage in all chill and fever localities.—*Hall's Journal of Health.*

FATTENING ANIMALS.

There are certain principles which apply to the feeding of all animals which we will shortly notice.

1. The breed is of great importance. A well bred animal not only affords less waste, but has the meat in the right places, the fibre is tender and juicy, and the fat is put on just where it is wanted. Compare the hind leg of a full-blood Durham ox, and a common one. The bone at the base of the tail extends much further in the former, affording more room for flesh, and the thigh swells out, of convex or circular shape; while in the common ox it falls in, dishing and hollow. Now the "round" is the most valuable cut, and is only found in perfection in high-bred stock. The same is the case over the whole body. So well do eastern butchers understand this, that their prices are regulated by the breed, even where two animals are equally fat. They know that in a Durham or Hereford ox, not only will there be less offal in proportion to weight, but the greatest quantity of meat will be where it brings the highest price when retailed, and will be of a richer flavor, and more tender fibre. The same is the case with hogs. A large hog may chance to make more meat on a given quantity of food than a small one, but the meat of the first will be coarse and tasteless compared with the other; and in the east, flavor and tenderness greatly regulate prices. Consequently, moderate sized, short-legged, small-headed hogs, always, in the long run, beat large breeds out of favor. In preparing for a market, "fashion and taste" must be as much considered by the farmer as by the tailor. This one fact is at present revolutionizing the English breed of sheep. The aristocracy always paid high for small Welch and Scotch mutton; but the great consumers, the mechanics, preferred large fat joints. The taste is now changed. In Manchester and other such cities, these large joints have become unsaleable; and all the efforts of the breeder are now turned towards small breeds maturing early, with comparatively little fat. According to late writers, the large Leicester and Cotswold are going quite out of fashion. When we give $3,000 for a Durham bull, it is not that his progeny are "intrinsically" more valuable to that amount, but the increased value and the fashion together, make up the difference. And it is thus, that while Durhams and Herefords are preferred for ships and packing, Devons are high in repute for private families. The joints are smaller, but the meat has a peculiar richness, probably found in no other kind of stock: and the proportionate waste is said to be less than in any other breed. Thus in the London market, the Scotch Kyloes, and then the Devons, (the former even smaller than the latter,) bring the highest price, because preferred by the aristocracy. So in Dublin, spayed heifers are sought for. But the breed also regulates the profit. There is nothing more certain than that one kind of animal will fatten to a given point on much less food than another, and as fattening our stock is only another mode of selling our grain and grass, those animals are to be preferred which come to maturity soonest, and fatten on the least food. The difference in hogs is very great and important. While some breeds must be fed for two, or even three winters, others are full grown and fattened at ten months old; and the difference in profit is enormous. We cannot go into particulars, but the following rules may be considered as applying to all: An animal may be expected to fatten easily when it has fine, soft, elastic skin, with thin or silky hair; the head and legs short, the "barrel" large, but chest and lungs small; and when it is quiet, sleepy and easy in temper. An unquiet, restless, quick-tempered animal, is generally a bad feeder, and unprofitable.

2. Much depends in fattening, on outward and mechanical management. Fat is carbon, or the coal which supplies the body with heat. If we are exposed to cold, it is burnt up in our lungs as fast as it is deposited by the blood; but if we are kept warm, by shelter or clothing, it is deposited throughout the body, as a supply on hand when needed. Warm stables and pens are a great assistance in fattening, and should never be neglected. So, also, quiet and peacefulness are important. Every excited action consumes some part of the body which has to be supplied by the food, and detracts from the fat. In the climate of Michigan, warm stables, regular feeding at fixed hours, and kind treatment, with perfect cleanliness, save many a bushel of grain. Animals fed at irregular times are always uneasy and fretting.

3. Ground and cooked food fatten more profitably than raw food. Mr. Ellsworth found that hogs made as much flesh on one pound of corn ground and boiled to mush, as two pounds raw unground corn; though the first did not fatten quite as rapidly, as they could not consume as much food in the twenty-four hours. By grinding and smoking, ten hogs will each gain 100 pounds in weight, on the same food that five would do if it were raw.

4. A change of food helps in fattening. Thus an ox fed entirely on corn and hay, will not fatten as fast, or as well, as one which has roots, pumpkins, ground oats or buckwheat, &c., fed to

it at regular periods. The latter may contain intrinsically less nourishing matter than the corn, but the change produces some unknown effect on the stomach and system, that adds to the capability of depositing fat. The best feeders change the food very frequently, and find that they make a decided profit by so doing. Salt should be given with every meal to cattle—say an ounce a day. It preserves the appetite and prevents torpor of the liver to which all fattening animals are subject. This torpor, or disease, is to a certain extent conducive to fat; but carried too far, the animal sinks under it.

5. In cattle the skin should be particularly attended to. A fat animal is in an unnatural state, and consequently subject to disease. Taking no exercise, it has not its usual power of throwing off poisons out of the system, and if the skin is foul, the whole labor is thrown on the kidneys. It is found by experience that oxen, regularly curried and cleaned daily, fatten better and faster than when left to themselves; and if the legs are pasted with dung, as is too often the case, it seriously injures the animal.

6. Too much rich food is injurious. The stomach can only assimilate a certain quantity at once. Thus an ox will prosper better on thirty pounds of corn and thirty pounds of cob ground together daily, than on forty pounds of ground corn. These mixtures are also valuable and saving of cost for hogs when first put in the pen. If an animal loses its appetite, the food should at once be changed, and if possible roots, pumpkins or steamed hay may be given.

7. Oxen will fatten better if the hay or stalks are cut for them, but care must be taken not to cut too short. An inch in length is about the right size for oxen, half or three-quarters of an inch for horses.—*Farmers' Com. and Horticultural Gazette.*

For the New England Farmer.

FARM LIFE IN NEW ENGLAND.

WHO SHALL DECIDE WHEN DOCTORS DISAGREE?

The recent discussion upon "Farm Life in New England," and the noted caricature of the farmer that has appeared in the kid glove magazine of the city, has awakened a degree of attention, that will probably be productive of sound instruction. In that paper are some statements prettily made, and others neither pretty nor trite, so far as my observation has extended. That a lady of New Hampshire should have been indignant at the assertion that her sex were treated by the lords of the soil, with less sympathy and kindness, under circumstances of greatest trial, than the animals of the stall is not surprising. No gentleman, who has been permitted to enter the abode of a respectable farmer would hazard such an assertion. No one well informed, would presume to say that the wives and daughters of the substantial yeomanry of New England are in any respect inferior to the better class of wives and daughters in our cities. True it may be, that the life of the farmer is hard—work, work, work, from morn to eve,—with but a slight balance in his favor, accruing at the end of the year, upon the observance of the strictest economy. But firm muscles, ruddy cheeks, and a clear conscience, are its sure accompaniments. ESSEX.

For the New England Farmer.

HOW TO KEEP FOWLS.

In my younger days, when on the old homestead farm, I always kept hens; but more for the convenience of having good new eggs, than for the profit of them, if profit there is.

It is thought by most farmers, and many others, that there is no profit, at all, in keeping hens; still, I have heretofore read accounts of the keeping of fowls, where the credit was considerable of a balance in favor of the hens. I presume many persons make it profitable.

Having some eighty or ninety hens and chickens on hand, I mean to keep debt and credit with them, on and after January 1st, so that I can know exactly the cost of keeping them, and the profit, if any there is. We have a good henery, so that I can keep them confined in the building, with the privilege of the cellar under a barn, or can let them run at large, when the weather is suitable. I would like to be informed of the best way to manage and feed the hens through the winter, in order to keep them laying eggs, or to make them lay at all—as, unless they do lay, more or less, through the winter, there cannot be any profit in keeping them. JAMES LEONARD.

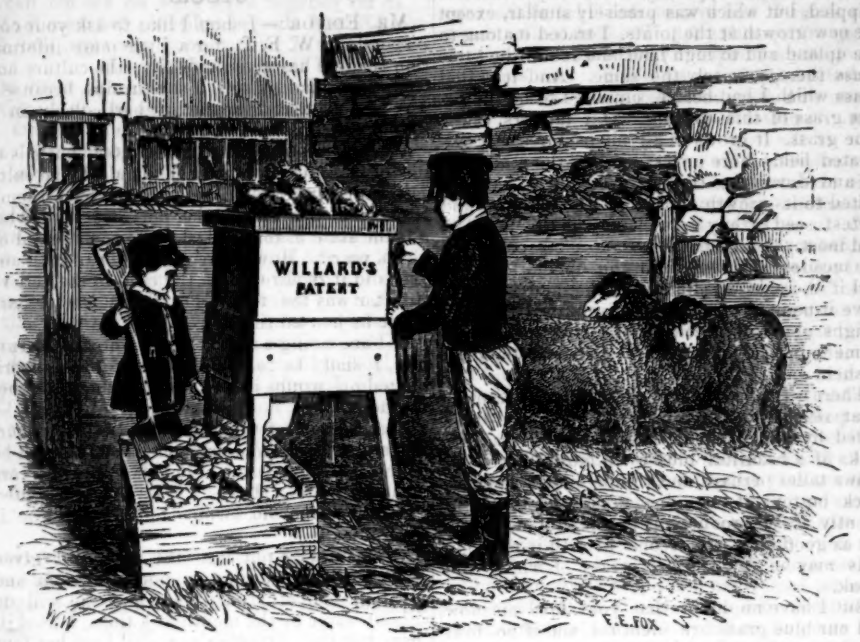
Leominster, Nov., 1858.

REMARKS.—Keep the hens in a *warm*, clean place, where they can have access to the sun whenever it shines. Feed them regularly with a variety of food, such as corn, which may always be before them, barley, wheat, boiled potatoes, mashed, and mixed with cob meal—that is, corn and cob ground together, and give them access to plenty of gravel, old plaster, or broken oyster or clam shells. The barley and wheat may be fed to them occasionally, if convenient. Add to these plenty of clear water, and pork or beef scraps or bits of fresh meat two or three times each week, and you will not fail to find your fowls profitable.

We shall expect an account of your experiment when completed, for the benefit of others.

FARMING WELL.—The great difficulty in the way of good farming is too much land. Farmers are so hurried in the getting in, and in the harvesting of their crops, that they have really no time to devote to the improvement of the soil. Let any one visit some of the ten-acre farms in the neighborhood of Cincinnati, and the truth will soon become apparent, that more profit can be made from ten acres, properly tilled and manured, than can be realized from one hundred acres run over in the usual negligent manner. The occupants of these "ten-acre farms" are growing richer every year, while many who occupy large farms barely "hold their own."—*Ohio Valley Farmer.*

FATTENING BEEF ON POTATOES.—About twelve years ago I fattened a heifer for beef wholly on potatoes. My plan was to feed small potatoes whole, without cooking, with as much hay as was wanted, and but little water, and I had as good beef as those fattened on corn meal.



WILLARD'S PATENT ROOT-CUTTER.

"This cutter is a recent invention. It cuts vegetables very rapidly, and in slices thin and fine enough for sheep, lambs or calves. It is very easily operated, so that a boy can turn the crank rapidly. The inside arrangement is such as to prevent all liability of clogging the cutter while working it, and the knives are easily repaired. The vegetables, after being passed through the cutter, may be mixed with straw, coarse hay, or other cheap forage which one would like to dispose of economically, and the mixture, after lying a little time, so that the forage may become impregnated with the scent and juices of the sliced roots, will be greedily and wholly consumed by the stock. Pumpkins (if not hard-shelled,) are easily cut with this machine, so as to be conveniently and quickly cooked for swine."

It would be a matter of economy for any person feeding out two or three hundred bushels of roots annually, to purchase one of these machines. They are very thoroughly made, and sold, singly, for $10, by *Nourse, Mason & Co.*, Quincy Hall, Boston.

HORSES' COATS.—Lately going to the country to spend a few weeks with a friend of mine, I drove a very handsome horse, and a good one—but he was always annoyed about his coat. It was more like a lot of bristles than a horse's smooth skin, and all the grooming he could get "wouldn't do it no good." My friend, who is a great horse-breeder and fancier, made me try giving him a few raw carrots every day to eat out of my hand, saying that he would have a good smooth coat in three weeks,—and he was right, for in that time my horse had a beautiful, sleek, glossy coat, and all from eating a few raw carrots daily. He tells me it is infallible.—*Cor. Porter's Spirit of the Times.*

For the New England Farmer.

FOWL MEADOW GRASS SEED.

MR. EDITOR:—Much inquiry has of late been made for fowl meadow seed, as to where it can be found, &c. I read with much interest the description, as given and represented by cut, in the *N. E. Farmer* of June 26th, never having known before what "fowl meadow" was. But I have for years known that the grass more abundant than any other, which goes to seed at the height of a few inches in all our pastures and by the roadside, bearing a very fine seed, is considered by many as the native grass of this country. Upon reading the article above alluded to, it appeared to me that the "fowl meadow," the "*Poa nervata*" there described, was identical with this grass which is so common among us. Mowing on low ground last July, I found the grass you describe, which had crippled down and produced

an out-growth from the joints, answering the description given of fowl meadow precisely. Near this which had crippled, grew that which had not crippled, but which was precisely similar, except the new growth at the joints. I traced it along to the upland and to high land, and found the same grass there, precisely the same. And it is that grass which I had before supposed to be the native grass of this country. Our farmers call it blue grass. It grows in all our pastures and cultivated fields more or less, and by the road-side, up and down the country everywhere, in soils suited to its growth. It produces the finest and softest seed of any grass, and it is the heaviest and most valuable hay. I have saved some from the meadow and some from the upland for seed, and if there is any difference, should be glad to have it pointed out. As usually cleaned, the seed weighs about fourteen pounds the bushel, and farmers get for it from three to five dollars the bushel.

There is another kind of grass among us, somewhat resembling this, which we call "red-top," called by some "Rhode Island blue grass;" it looks of a beautiful blue when mown down. It grows taller perhaps, but thinner, not having the thick bottom of our blue grass, and is consequently not so productive; the quality of the hay not as good, and the second growth is nothing. This may be the German grass of which you speak.

But I have no doubt that your fowl meadow and our blue grass are identical, and if so, fowl meadow seed is raised here in large quantities.

R. F. COPELAND.

East Bridgewater, Mass., Nov., 1858.

For the New England Farmer.

A NEW CORN.

MESSRS. EDITORS:—I have what I consider a new variety of corn, which I obtained in the following manner.

A few years since I purchased some corn at a seed store and planted it, and while it was in the process of maturing, I discovered two or three stalks, each having two and three ears upon them, and being *eight* or *ten* days earlier than the rest. I picked these stalks with the corn ripe upon them in the middle of August, and this is the origin of the corn.

For two years past I have raised the Rhode Island premium corn, in order to test it, and I am able to state that mine is at least one week earlier, and is *fifteen* per cent. more productive than that, while it has the advantage in color, being a bright yellow, with a trifling intermixture of blue. Taking into consideration its color, compactness, shape of the ear and the remarkably short time required to bring it to maturity, I cannot but believe that it is the best variety of corn that has yet been introduced among us.

WILLIAM HOWE.

Brookfield, Mass., Nov., 1858.

REMARKS.—We have seen specimens of the corn mentioned above, and they are certainly very handsome. We have no other knowledge of it.

For the New England Farmer.

VALUE OF TURNIPS AS FEED FOR STOCK.

MR. EDITOR:—I should like to ask your correspondent, W. F. P., for a little more information than he has given me, as to the culture and feeding of his turnips. I say turnips, because it was turnips that I spoke of particularly, in a former article.

He says he has raised over 2,500 bushels of turnips this year. How much land did he cultivate with turnips? How does he feed them? How much manure did he put on it, and what was the state of the land when he commenced on it this year? How many days labor of man and oxen did it require to put the crop in the cellar? How far was the field from the house or barn where he housed them?

If I am wrong as to the profit of the turnip crop, I shall like to be informed of it. I experimented on turnips until I thought they were no profitable.

I had an ox that would eat two bushels of turnips a day, and about as much hay as though he had not had the turnips, but he did not care about any water. It was a great saving of *water*. I would recommend turnips for any one who is short of *water*.

A cow may be put into the barn and given half a bushel of turnips or potatoes night and morning, with other dry feed, and she will do without water by the month at a time. I tried it. I have put up a breeding sow, and kept her four months on turnips; she had nothing else except what she picked out of the manure of two horses. She lived and brought a great litter of pigs. I gave her about three pecks of turnips a day, and one quart of corn in meal a day would have kept her better.

I think turnips have from 92 to 95 per cent. of water. If that is the fact, my friend's 2,500 bushels of turnips had from 2,300 to 2,375 bushels of water in them. I think his comparison of one and a half tons of hay, or fifteen tons of turnips, to the oxen, should be looked at a little more. He should take his turnips and cut them as fine as the hay, and then spread them over an acre of ground, and let them have the advantage of two good hot days' sun in July or August—carefully turning it as we do hay, and then weigh it, and he will find his fifteen tons of turnips have lost a great part of their 90 to 95 per cent. of water, and would then weigh less than the hay. As my friend has disposed of that lion, if he will give me the above information asked, I will be much obliged.

ED. EMERSON.

Hollis, Nov. 25, 1858.

WATERING SHEEP IN WINTER.

That sheep can do with less water than other domestic animals, is well known. That they should be *forced* to do with a less quantity than they desire, or compelled to do without any except what is accidentally supplied by melting snow or rain, no reasonable or merciful man can believe for one moment. In some experiments on South Down sheep, at Rothamstead, we found that in the summer months each sheep eat three pounds of clover hay, and drank about six pounds

of water daily. Thinking that they drank more than was favorable for the deposition of fat, we confined them to a less quantity of water for one week. The result was that during that time they eat less food and *lost weight*. This result satisfied us that sheep knew better than man, though he were scientific, how much water they required.

But we need not quote experiments. The common sense of every man tells him that sheep, as well as all other animals, should be abundantly supplied with good, fresh water. Cows and sheep, if possible, should have free access to it *at all times*. For, unlike the horse, they will not always drink at stated times, however regularly observed. A well, pump and troughs would seem, therefore, to be necessary appendages to every well-managed barn-yard or sheep-fold. Kind reader, *act* on this matter, and your sheep and cows will bless you, if not in words, at least in wool, milk and profit.—*Genesee Farmer.*

EXTRACTS AND REPLIES.

THE APPLE AND PEACH TREE BORER.

Is there any application in use which will prevent the ravages of the borer? What is the most direct method to dislodge them and stop their depredations? A SUBSCRIBER.

Nov., 1858.

REMARKS.—Various remedies have been prescribed, such as whitewashing the tree, washing with spirits of turpentine, with whale oil soap, &c., but it is doubtful whether with beneficial results. Some persons insert a bit of camphor gum into the hole and then plug it up with a piece of soft wood, while others cut out the grub with a knife or gouge. The latter remedy is a rough one for the tree, in unskilful hands—but often is efficacious in dislodging the enemy. One of the oldest, safest, and most successful methods that we have adopted, is killing the worm by thrusting a pliable wire into the holes it has made. This does no injury to the tree, is cheap, convenient, and quite often effects the desired object.

Below we give an article from the *Genesee Farmer* on the subject of borers, merely adding that we have often expressed the opinion *that the borer will attack an unhealthy tree in preference to a healthy one*, and this we believe to be in accordance with that law of nature, that when animals or vegetables begin to decay, there are immediately agencies at work to hasten their destruction.

THE APPLE TREE BORER.

EDITORS GENESEE FARMER: — Conversing with an intelligent friend, who is largely engaged in apple growing, the conversation turned upon the apple tree borer. His opinion in regard to this insect was, that *it would never attack a perfectly healthy tree.* There was a vast difference between a *thrifty* tree and a *healthy* one. A *healthy* tree, according to his idea, is one that has received nothing but vegetable manure, whereas a *thrifty* tree may have received animal manure.* It was his opinion that the borer would not molest a tree which had been grown wholly by the aid of vegetable manures.

To illustrate this theory, he referred to one of his orchards, which was set out on unbroken pasture land, receiving but one plowing and no manure. Receptacles were dug and partly filled with fragments of turf, on which the tree was set, covered with earth, and thoroughly mulched with straw, brakes, leaves, and other refuse vegetable matter, which was repeated as often as necessary. In this orchard the borer is not to be found; while in others, which have been repeatedly plowed and fertilized with animal manure, they commit their yearly depredations.

Has any one else noticed a similar result?

Belfast, Me., Nov., 1858. G. E. BRACKETT.

* By animal, we understand common barn-yard manure, made up in part by the droppings of animals. Why such manure is unhealthy, we cannot conceive.—*Eds. Genesee Farmer.*

DISORDER AMONG LAYING HENS.

For some years past, but the last more particularly, my hens have been taken, in the season of laying, with a dangerous disorder which often proves fatal. The sick hen will lose her eggs prematurely, but will continue to set on her nest daily, and sometimes lays an egg, though seldom. I have sometimes found under the roost two or three eggs partly developed. Frequently the egg will break in the passage, in which case the hen often dies or suffers very much, drooping around for a number of days. I think that sometimes the passage itself is broken, so that the broken egg runs in among the intestines, as I have dissected a number that were filled up with the yolk of eggs. Out of about a dozen hens, I have lost the use of, or had die, as many as seven. This winter I have commenced with twelve, and I have already had one attacked. I first found her sitting and unable to walk; but she got up and appeared as well as ever next day, but she has not laid from that time, and probably she will never be worth much more as a layer. If any one can tell of a preventive or a cure for this disorder, I hope he will give us the benefit of his knowledge.

C. T. PAINE.

East Randolph, Vt., Dec., 1858.

REMARKS.—We can think of no cause of the disorder you describe, but a want of proper food and shelter. It may not be either, but these are the points to which we should especially direct your attention. Fowls will not prosper well in damp places, or without a *variety* of nutritious food, and access to plenty of gravel or shell-forming substances. Look, also, to the breed, and learn whether your present stock is from those long kept together on the same farm or neighborhood. See article in another column entitled, "*How to keep Fowls.*"

DRAINS AND WIRE FENCES.

Would you advise underdraining and subsoiling, either or both, on a side hill, the soil of which is a gravelly loam? It is new land. In the *Farmer* of Aug. 14, there is an article taken from the *Working Farmer*, entitled "Restoration of Exhausted Soils," wherein the writer advocates

underdraining and subsoil plowing, as among the best means of bringing the soil to that condition necessary to a high state of fertility. Would it be advisable on such lands as the above?

Hon. H. F. FRENCH, in one of his articles on wire fences, speaks of the necessity of some one inventing a spring to hold the wires that would relieve them of the continual strain upon them. Would not India rubber be just the thing? It seems to answer every purpose in summer and winter when used as car springs. Would it not do as well for the above purpose?

In regard to a corner-post to strain and fasten the wires to, I would ask, where there are no trees that can be used for that purpose, and there are large rocks near the spot, could not the wires composing the fence be gathered to one point and fastened to an iron staple driven in the rock? Would the frost heave the rock so as to slacken the wires? B. F. M.

Lowell, Nov. 29, 1858.

REMARKS.—It is difficult, if not impossible, to give valuable advice about draining land, without a personal inspection of it. There are some evidences, however, in the vegetation itself, of the necessity of draining, where too much cold water is near the surface. In most instances of this kind, such grasses will appear as naturally grow in low, wet places, and they will gradually assume the whole ground, by pushing out the grasses which we usually cultivate. Where these evidences are found, the land, as a general thing, needs draining. It is difficult to plow or otherwise work such lands in season to get in the crops.

Perhaps your suggestion about the India rubber springs may induce some to try them. There can be no question, we think, but that attaching wires to a rock would be effectual.

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TO PREVENT FLOWING SAP IN TREES.

FRIEND BROWN:—In your paper of Nov. 13, I noticed an article by T. ELLIS, of Rochester, in which he inquires if any one can tell him how he can save his trees? I would say that I have an infallible remedy for stopping the flowing of sap, or bleeding, as we term it. It is simply to dip the end of the limb, twig, or grape vine, into boiling pitch or rosin, and let it remain two or three minutes. But this remedy probably cannot be applied in his case, and I will give another: Take a flat bar of iron and apply it red-hot to the end of the stump until the bark and wood are well seasoned downward, say half an inch; then apply a good coat of pitch or rosin, and melt it in with the same iron, moderately hot; this will form a cap that will keep all sap in, and all weather out, until friend Ellis is too old or too wise to trim his valuable trees in May.

Peterboro', N. H., 1858. S. MAYNARD.

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THE SEASON.

After a beautiful season for ripening and gathering, winter appears to have taken a permanent hold. The 13th gave us an easterly snow-storm, and the rough, March like north-west winds of the following week kept the snow in perpetual motion. The atmosphere, through the week, felt like winter and the young drifts looked like winter.

Sunday evening, the 21st, we had another fall of about three inches of snow, which settled one-half under the mild sunshine of the following day.

On Wednesday morning, the 23d, another snow storm commenced at about two o'clock from the north-east, and continued for twelve hours, giving a fall of about four inches, very damp snow, lying nearly level which gives a prospect of sleighing for Thanksgiving. W. B.

Richmand, Nov., 1858.

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BARLEY AND OATS.

Will barley turn to oats if cut down by frost, or eaten off by cattle? E. B.

Chester, N. H.

REMARKS.—We have never heard of such a case, and find nothing like it recorded in the books. Barley is a grain, however, that rapidly deteriorates on soils unsuitable for it—or under careless cultivation. It is a tender plant, and easily hurt in any stage of its growth; and as it is so easily affected by soil and cultivation, we should not be surprised that if it were cut down by frost, or eaten off by cattle, it might be so far affected as to resemble oats when it had headed out.

For the New England Farmer.

MARROW SQUASH—SCOTCH DRUM-HEAD.

MR. EDITOR:—The question regarding the first introduction of the autumnal marrow squash, called Boston marrow, into the city, I have thought might be interesting to some of your readers; I herewith send you the following condensed account, so far as I have ascertained, of its origin. A specimen of this vegetable was brought to my place in North Salem by a friend from Northampton, in this State, in 1831. In the spring of 1833 I distributed seeds to many members of our Mass. Horticultural Society, they never having seen it previously. At the Annual Exhibition of this Society at Faneuil Hall, Sept., 1834, I exhibited a specimen, merely marked "New Squash." This was previous to the description or cut being made. One month from this (in Oct., 1834,) I forwarded the name, autumnal marrow, together with a wood cut, to the *N. E. Farmer*; it soon after appeared in the *Horticultural Register* of Teschemacher, and also in *Hovey's Magazine.* Some years after this the Mass. Horticultural Society presented me with a testimonial for the introduction of this vegetable. Regarding its origin, I can only say that it was received from Buffalo, N. Y., and that it was brought there by some Indians who visited that city. This I ascertained from my Northampton friend. This vegetable hybridized with all the tribe of pumpkins, hence it is a true, sweet pumpkin; the Valparaiso or Lima, and all those we call true pumpkins, will mix; but not so with the Winter or Canada crookneck, which I consider

a true squash; this will not hybridize (as far as I can ascertain from others, as well as by my own experience,) with the pumpkin tribe. I cannot say but that it may with the gourd family, but I have not as yet observed this.

MIXING OF THE MARROW.

The first indication of the mixing of this fine vegetable with others, is the thickening of the skin and contracting or smallness of the stem. Second, in the green color at the seed end. Third, in the enlargement of the fruit, and lastly, the disappearance of the elevated margin around the seed. This vegetable is now raised in abundance in New York and Pennsylvania, and having received them originally from your city, they are known as "Boston marrow."

Another vegetable which is considered by the cultivators around Marblehead, as an acquisition, and which they raise with great success, is a mammoth cabbage, weighing twenty-five pounds and upwards. These were first raised by Mr. Mason, of that place, and hence are called Mason's cabbage. This variety was first raised from seed which I received some fifteen to eighteen years since, from Charlwood & Sons, Seedsmen, Covent Market, London; it came to me as a new cabbage, marked "Scotch drumhead;" I gave the small paper to Mr. Mason. This vegetable, by the high manuring for which the Marblehead cultivators are famous, has increased the size of this variety at least one-half. I recently visited a field of these enormous vegetables with a friend, who suggested that in order to identify this variety with the town, it should be called "Marblehead mammoth cabbage." JOHN M. IVES.

Salem, Mass., Nov., 1858.

For the New England Farmer.

TOPPING CORN STALKS.

"The practice of cutting corn-stalks as soon as the corn is glazed, is still followed, notwithstanding the loss in the weight of the corn is more than the value of the stalks."

I extract this sentiment from page 72 of the forthcoming *Transactions of the Essex County Agricultural Society*; a work to which I am accustomed to look for sound instruction. I know of no work of the kind, prepared with more care, or better entitled to confidence. Is it true that this error among farmers is "still followed" almost universally, to the prejudice of the crop? Who knows that the quantity of corn is diminished by the removal of the stalks? Has there been any well-conducted experiments to determine the fact? Without doubt, the stalks are more valuable to be taken off, and properly cured. But corn is not cultivated for the stalks that can be saved, but for the corn itself. I have often heard it averred, that the kernel will be better filled, if the stalks are left on until the harvest. But this may be all theoretical. If any one knows the fact, let them come forth, and be heard.

I am pleased to see among the contributors to the pamphlet above named, several talented young men. There is no danger of knowledge fading away, although the fathers decay. I hail with satisfaction, among these contributors, the names of Page, Gregory, Sargent, Phippen, Putnam, Preston, and others. ESSEX.

November, 1858.

For the New England Farmer.

AGRICULTURAL PROGRESS.

BY WILSON FLAGG.

Dr. Franklin, on seeing a fly make his escape from a bottle, in which for a long period of years it had been corked up in a torpid state, expressed a wish that he could sleep half a century or more, and then awake, like the fly, to witness the progress which had been made in his beloved country. But if steam-power had been carried into operation to its present extent in Franklin's day, I do not believe he would have expressed any such wish. When I consider the inevitable tendency of this great invention to concentrate all wealth and power into the hands of capitalists, I feel as if I should be reluctant to wake up some ages hence, to view my country when the world is finished. Though it will be admitted that steam, in its application to travelling and to manufactures, has conferred great *apparent* benefits upon mankind, we still have reason to ponder seriously upon the ultimate consequences to small independent farmers, of the introduction of steam power into the operations of agriculture.

I read in the journals of the day, some weeks since, that a company had been formed in the western part of the State of New York, for agricultural purposes, and that they had purchased a "mammoth farm," on which they designed to operate by steam, in connection with the several magnificent inventions which have lately attracted the attention of our agricultural societies. However expedient this system of associated capital may be for the growth of manufactures, it would very soon be found destructive to the prosperity of individual farmers. These corporations, executing almost all their heavy labor by steam power and mammoth implements, would crowd out of the ranks of agriculture all those whose farms were of such small extent, that steam could not be profitably used by them. In competing with the companies, the small farmer would find himself in the situation of the hand-spinner and the hand-weaver, who should undertake to compete with the manufactories of Lowell and Lawrence.

Last year, the Illinois State Board of Agriculture offered a premium of $5000 for the best steam-plow—thus encouraging an invention calculated to make the business of farming profitable exclusively to great corporations or capitalists; to destroy the value of the present mode of farming, and to extirpate the whole class of small farmers from the State! All such inventions tend to make it necessary that agriculture should be carried on by large employments of capital, and on a magnificent scale of operations. All agricultural implements which are moved by steam must be profitable in a certain ratio to the extent of even and uninterrupted surface which is to be tilled. On small fields it would be impossible to use them with success. Hence follows the necessity of farming by associated capital, of greatly increasing the size of farms by combining many into one; and under such *improved* circumstances, the present system of farm labor could not stand in competition with steam-farming. The agricultural steam-company, with their implements carried by steam-power, would cultivate ten acres with about the same expense

of labor which is now employed in cultivating one acre. If the moral education and physical improvement of laboring men were to be the effects of this new system of farming, there would be reason for rejoicing over the prospect of the change. But no such happy results would spring from it; laboring men, instead of being elevated into lords, would be degraded into mere machines.

Men are too prone to base their theories of human progress on the assumption that labor is a curse, and not, as it is undoubtedly, when it is free and justly rewarded—a blessing. But labor ceases to be free, in the highest sense, when the laborers are under the control and in the power of mammoth associations. Labor then becomes *servitude*, which is closely allied to *slavery*. No one would say, that under the present circumstances of the country, the operatives in our manufactories, however well paid, are as free as our farmers, masons and carpenters. It should be remarked, also, that when labor is performed by powerful machines, man becomes a slave to the machinery; when, on the other hand, the implements in use are small, the machinery is the servant of man. The production may be greater in the former case; but the health and freedom of the masses are sacrificed to obtain it. The object of the statesman and the philanthropist should be to make the people free, virtuous and happy; and any increase of the wealth of the nation which must be obtained at the expense of the moral and physical welfare of the people, is not to be desired.

But it may be asked by some jealous friend of "progress," if it is right to refuse to agriculture those *aids* which have built up our manufactures? I would answer that we should refuse to agriculture any aid which is not beneficial to the agriculturist—for the farmer is of more importance than his crops. Let us not improve agriculture by any such means as will degrade man. If we could double the agricultural produce of the whole country at the present cost, by a system which would destroy the independence of our farmers, we should turn all our forces against it, as against the invasion of a foreign army.

In order to illustrate the consequences of this sort of "progress," we will apply it to an imagined case. We will suppose, for example, that in some indefinite period of the future, when steam-farming by associated capital has become nearly universal, there remains, in a certain part of the country, one of those farming villages which are now so common in our happy land. The farmers in this place are intelligent working-men, and small land-proprietors, who have but little capital except their lands and stock, and support themselves by industry and honest trade. After steam-plows, steam-rakes, steam mowing-machines, and other magnificent improvements connected with them, have swept over the country, they have arrived at last, at this antiquated village, where labor is free, and where the farmers are so old-fashioned and behind the times, as to own the lands they till, and carry on farming as we carry it on in the present barbarous age of political and social equality.

These industrious farmers have ascertained now by bitter experience, that by the use of hand implements and horse and cattle power, in the operations of the farm, they cannot compete with the great agricultural corporations, which by means of steam-power can produce at an expense of ten dollars, results which they could not produce at an expense of less than one hundred. The agent of a new company, chartered with ten millions of capital, offers to these unhappy men a price for their farms, which, through exceedingly low, is such as under their present circumstances they feel obliged to accept, especially as a promise accompanies the offer, to employ them as laborers on the soil, under the direction of the officers of the company. The majority consent to the sale, and the remainder are obliged to consent by a law of the legislature placing it in the power of corporations *"established for the public good,"* as it is now in the power of railroad corporations, to seize upon a refractory individual's land and estate, after paying him what a body of commissioners deem an equivalent for the property seized. These mammoth agricultural corporations, by means of bribery and political manœuvreing, would easily obtain sufficient influence over legislative bodies to cause the enactment of such a law. This any one will believe who has had any political experience, and who knows how easily the worst measures may be carried by making them party tests.

Let us now examine the consequences in detail, after this little village of happy and independent laborers has been converted into a mammoth farm, owned by a company, and carried on by steam-power. At the commencement all the pleasant old farm-houses are removed, because they stand in the way of tillage, which is performed as much as possible in large, undivided lots. All fences and boundaries, except those by the roadside, are for the same reason taken down, to open many small fields into one. It has been ascertained, by experience, that no single field can be worked with the best advantage, unless it contains at least five hundred acres. If it contain a thousand, it is still better, since the larger the field, the more conveniently can it be worked by steam. Hence the preliminaries for steam-farming are necessarily a work of devastation. Many delightful groups of trees and shrubbery, some that skirted a winding brook, others that bordered the walls and fences, including many standard oaks and maples, are swept to the ground, rooted up by some giant infernal machine, as easily as a farmer pulls up weeds. All abruptly swelling ridges and other eminences—the charm of many a landscape—some of them beautifully crowned with trees and shrubs, and others velveted with green herbage, and forming numerous little valleys, now smiling in sunshine, and then sweetly sleeping under the summer shadows of trees, where the flocks found a comfortable resort in all weathers, are now graded into one vast level.

The brooks are conducted into canals, and carried along in straight courses for the convenience of labor and the purposes of irrigation; for it is necessary that their circuities should not interfere with the progress of the steam-plow. In fine, that pleasing variety of surface which beautified the landscape, when it was in possession of the original inhabitants; those quiet rustic lanes fringed with wild roses, hawthorns and viburnums, conducting from the dwelling-hous-

es to the adjoining fields and woods; the comfortable enclosures that resounded with the lowing of cattle and the cheerful noise of poultry, and worst fate of all, the old farm-house, where the patriarch of a small estate presided over a happy family, happy, because they were free and healthfully employed—all, all are swept away by this besom of improvement.

And where are the inhabitants? The sturdy yeoman, who, though doomed to hard labor, found this labor sweet, because it was voluntary; the happy and independent swain who called no man master, and who was really a king in his own acres, is now a hired servant of the corporation. The farmers, their wives and their children, have all been reduced to servitude in this grand manufactory of corn and vegetables. The tiller of the soil has become a slave to his crops. Each thousand acres devoted to a single crop is managed by an agent imported from the city, who understands book-keeping, but was never accustomed to labor. He receives a large salary, and pays out their weekly pittance to the farm laborers. In order to facilitate operations, there is a minute division of labor, as in the cotton and woollen factories. Some of the farmers are employed exclusively as shovellers; some are used as drivers of cattle; some ride on the engine; others are employed continually to follow after the cattle and pick up their droppings, which are all nicely economized, and never allowed to lie and waste one minute upon the ground.

The several families, with the exception of those who emigrated to some other place, are tenants of wooden boxes, put up close to the ground, for the economizing of land. All these are in exact uniformity, and are owned by the corporation. I ought to add that the majority of the farmers, flattered with the hope of sudden wealth, invested all their capital—the proceeds of the sales of their estates—in the corporation stock, which they were soon obliged to sell, at an immense sacrifice, because the extravagance and dishonesty of the company's agents, absorbed all the profits, and cut down their dividends. In less than ten years, almost every one of these independent farmers was a poor man; and the village children who lived as free as the birds of the air in their humble rural homes, now work in platoons upon such parts of farm labor as they are able to perform. Before the village was sold, you might see these little children, with their satchels, going regularly to the district schools, clad in neat and various attire, skipping and playing on the route, full of gladness and freedom. Now they are called up in the morning by the ringing of a bell. They rise, they work, they eat, they go to bed and they sleep to the sound of a bell, that tolls dismally in their weary ears, the knell of all their former joys.

In the story of this once happy village and its inhabitants, we may read the fate of the whole country, should the steam-engine ever be introduced into the business of agriculture: and this would inevitably follow, if farming were to be carried on by corporations, involving large amounts of associated capital. Such a class as that of independent laboring farmers—the only *undegenerated* class in any civilized community—would cease to exist. If it be "progress" or "improvement" to convert all these valuable men into hirelings, under the agents of mammoth corporations—then we must admit the utility of the change. But I am not yet ready to admit any measures to be progressive, which lessen the happiness and liberty of men, how much soever they may increase the productiveness of the arts.

"Ill fares the land, to lurking ills a prey,
Where wealth accumulates and men decay.
Princes and lords may flourish and may fade;
A breath can make them, as a breath has made;
But a bold peasantry—their country's pride—
When once destroyed, can never be supplied."

For the New England Farmer.

ROOT CROPS.

MR. EDITOR:—Your correspondent "E. E.," in the *Farmer* of November 6, inquires if D. Needham can gather a hundred bushels of turnips for three dollars? and if so, he will try and hire him to do it for him; yet in his last paragraph, he says he would not let you (or any one else,) put a hundred bushels into his cellar, if they were given to him.

He then goes on to say, the raising of root crops in his "region" was as fashionable fifteen or twenty years ago, as it is unfashionable now. He does not undertake to say, why others changed, but gives his own reason for so doing. His first trial, was to put some seeds into his hen manure that he intended for corn, which resulted in a great loss to his corn, where there was one or two good turnips in the hill. Now I think that is a new and very novel way of raising rutabagas; and I think it would not be surprising to any one, that "one or two good stout turnips" would take the "starch" out of a hill of corn; and that pretty effectually too; and no wonder that a portion of the stalks had "no maturing ears on them." I can tell "E. E." that the surest and the best way to raise root crops, is to raise them separate from any other. If he would like to know of an easy and expeditious method of raising rutabagas, I can tell him how my experience has taught me.

Select a piece of land that is suitable for corn, that has been planted the last year to corn or potatoes, so that it shall be mellow, and of fine tilth. In the spring, when the ground is sufficiently dry, plow it thoroughly, deep and fine, and then harrow it down level; now prepare a good supply of manure, at the rate of twenty-five to forty cart-loads to the acre; then about the last of June, spread on your manure, and plow it in crosswise. Then harrow it again and brush it perfectly smooth; previous to which, however, the stones and other obstacles should be removed from the field, so as to facilitate the running of the seed-sower. Now sow the seed at the rate of a pound to the acre; have the rows at least thirty inches apart, so that you can use a horse and cultivator; with the aid of a boy to lead, you can do the work of eight men with hoes easily. When the plants are about two or three inches high, thin them to one foot apart, keep the ground clean and free from weeds, and I will warrant a crop of turnips that will be a pleasure to look at, equal to anything upon the farm.

As regards the labor of cutting turnips by

hand, and feeding them out, if it is thought to be too much work about it, purchase a root-cutter that will do the work quickly. I do not think it advisable for any man to have "hired help" about, that takes a man an hour to cut and feed out four bushels of turnips, when one-quarter part of the time is sufficient for the operation. If you do not like them in the cellar of your house, provide a place under your barn, as every good farmer should.

In conclusion, permit me to say to "E. E." that I think it will give more satisfaction to the readers of the *Farmer*, if he and all others will please to give their name and place of residence, that it may be known what "region" they hail from, for then they will not "hide their light," as it were, "under a bushel," but will shine for the good of all around them. J. UNDERWOOD.

Lexington, Nov. 1858.

EXTRACTS AND REPLIES.

PRESERVING SPECIMENS OF BIRDS AND FISHES.

Will you inform me in regard to the best manner of preserving specimens of birds and fishes for the cabinet? QUI.

REMARKS.—In volume 4 of the monthly *Farmer* for 1852, page 349, you may find a specific account of the manner of stuffing birds, which will undoubtedly be just what you desire. It is too long to copy here. It was prepared by our associate, Judge FRENCH, expressly for our columns.

You will find an answer to other portions of your letter in another column.

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SHEEP, LAMBS AND WOOL.

In March, 1857, I bought seven French Merino ewes, from which I raised 6 lambs that spring, and sheared 50 pounds of wool. Last spring I received 10 lambs from 6 of the old ewes, and from the 7 original sheep, and the 6 yearlings, I sheared 100 pounds of thoroughly washed wool.

CORN.

My corn, (which is known by the name of the King Philip) I planted in three separate patches. From one of these pieces, containing ½ an acre, I received 115 bushels of ears. Also from another piece of ⅛ of an acre, I got 135 bushels. This piece suffered considerably from drought.

POTATOES.

From ¼ of an acre planted on the "one eye system," I dug 95 bushels of sorted potatoes. As I did not put in seed enough, I am dissatisfied with this trial, and am confident that I can raise a much larger crop next year on the same plan, These potatoes were raised on greensward land, enriched with only two loads of manure.

Sharon, Vt., 1858. D. L. STEELE.

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EMIGRATION EAST.

Mr. JACOB CROWLEY, West Mansfield, Mass., one of our old subscribers, writes us that he has purchased a large farm in Franklin County, Me., near Lake Moosetumaguntic, where the soil is excellent, the timber heavy in the forest, with a plenty of good pasture and smooth tillage land, and where farms may be purchased at the rate of *four dollars* per acre. He says hay, oats, wheat, barley and potatoes are raised in abundance, and within 29 hours ride of Boston. He thinks there will be a considerable emigration from Western New England to that portion of Maine next spring.

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AUSTRALIAN OATS.

The readers of the *Farmer* will remember the large yield I had of this kind of oats last year. They have done equally well this year, except that they are not quite as heavy, on account of the rust striking them before they were ripe. I had heads over twenty inches long in my front yard; the average length in the field was about twelve inches. Last year there was a great call for them, and I had none to sell, as all I had to spare were sold to those who saw them before they were cut. C. F. LINCOLN.

Woodstock, Vt., Dec., 1858.

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KIND OF CARROTS FOR CULTURE.

I wish to inquire which is the most productive variety of field carrots, and which the best for feeding neat cattle and swine?

I have cultivated the Orange carrot on a small scale for two years past with good success.

Clements, N. S., Dec. 1858. ISRAEL BALCOMB.

REMARKS.—The long *Orange carrot* we consider the sweetest and most nutritious, but perhaps will not produce quite as many pounds per acre, under the same circumstances, as the Altringham carrot.

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GRASSES—PLAN OF FARM BUILDINGS.

Mr. T. P. BAYLEY, of South Ryegate, Vt., has our thanks for the plan of Farm Buildings sent in a recent letter.

We are not quite clear as to what all the grasses are, about which inquiry is made. The first is undoubtedly the fowl meadow, common to most parts of New England, and an excellent variety. A small book on The *Grasses*, recently published by *Charles L. Flint, Secretary of the State Board of Agriculture of Mass.*, will give you great aid in an investigation of the grasses which grow on your farm.

We think you will find it advantageous to reclaim swamp lands that are convenient to the buildings, by taking it in moderate portions, and thoroughly performing the work as far as you go. You will not probably err in hauling too much muck upon your uplands if they are of a sandy character. Try a piece at the rate of fifty ox loads per acre, and another with half that amount, and let them be treated precisely alike in other respects, and note the result.

A GREAT WHEAT CROP.

"A writer in the *Genesee Farmer* says that he has tried the cultivation of wheat in hills, like corn, having the hills two feet apart each way; and two or three plants to the hill; and he reports obtaining from a small plat of ground, 'a crop so large as to be equal to two hundred bushels to the acre.' The soil is kept stirred and cultivated during the growth of the crop."

REMARKS.—This seems to us impossible—we believe the "writer in the *Genesee Farmer*" must be mistaken. When we look at a field of wheat that produces thirty, or thirty-five bushels per acre, we are puzzled to find room to place the plants to bring ten bushels more. It is the publication of such improbable events, such wild assertions, that throws discredit on the agricultural press.

BOYS' DEPARTMENT.

SIR ISAAC NEWTON'S TASTE FOR FARMING.

When Newton had reached his fifteenth year, he was called from the school at Grantham, to take charge of his mother's farm. He was thus frequently sent to Grantham market, says Timbs, to dispose of grain and other agricultural produce, which, however, he generally left to an old farm servant who accompanied him, and Newton made his way to the garret of the house in which he had lived, to amuse himself with a parcel of old books left there; and afterwards he would entrench himself on the wayside between Woolsthorpe and Grantham, devouring some favorite author till his companion's return from market. And when his mother sent him into the fields to watch the sheep and cattle, he would perch himself under a tree, with a book in his hand, or shape models with his knife, or watch the movements of an undershot water-wheel. One of the earliest scientific experiments which Newton made was in 1658, on the day of the great storm, when Cromwell died, and when he himself had just entered his sixteenth year. Newton's mother was now convinced that her son was not destined to be a farmer; and this, with his uncle finding him under a hedge, occupied in the solution of a mathematical problem, led to his being again sent to Grantham, and then to Trinity College, Cambridge, which thence became the real birth-place of Newton's genius. —*Scientific American.*

AN OBEDIENT CHILD.—No object is more pleasing than a meek and obedient child. It reflects honor upon its parents for their wise management. It enjoys much ease and pleasure to the utmost limit of what is fit. It promises excellence and usefulness, to be, when age has matured the human understanding, a willing subject in all things to the government of God. No object, on the contrary, is more shocking than a child under no management. We pity orphans who have neither father nor mother to care for them; but a child indulged is more to be pitied —it has no parent; it is its own master—it is peevish, forward, headstrong, blind—born to a double portion of trouble and sorrow above what fallen man is heir to; not only miserable itself, but worthless, and a plague to all who in future will be connected with it.

LADIES' DEPARTMENT.

DOMESTIC RECEIPTS.

PICKLED EGGS.—Boil the eggs until very hard; when cold, shell them, and cut them in halves lengthways. Lay them carefully in large-mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, allspice, a few pieces of ginger, and a few cloves of garlic. When cold, tie up closely, and let them stand a month. They are then fit for use. With cold meat, they are a most delicious and delicate pickle.

HOE CAKE.—This cake, so popular in the South, as a breakfast and tea cake, is made in the following way: Scald a quart of Indian meal with a pint of water; stir in two teaspoonsful of salt, and a little butter melted; put it, when properly mixed, into a well-greased tin, and bake it half an hour.

TO RESTORE SOUR MILK OR CREAM.—Milk or cream, when it has turned sour, may be restored to its original sweetness by means of a small quantity of carbonate of magnesia. When the acidity is slight, half a teaspoonful of the powder to a pint of milk.

STALE BREAD.—It is not generally known that stale bread, when immersed in cold water for a moment or two, and re-baked for about an hour, is in every respect equal to newly-baked bread.

RICE AND APPLE PUDDING.—Boil half a pound of rice in half a pint of milk till it is soft, then fill the dish half full of apples which have been pared and cored; sweeten with sugar or molasses; put the rice over the fruit as a crust, and bake one hour.

COTTAGE PUDDING.—Mix about two pounds of pared, boiled and mashed potatoes with one pint of milk, three eggs well beaten, and two ounces of sugar. Bake three-quarters of an hour.

POTATO APPLE DUMPLINGS.—Boil any quantity of white, mealy potatoes; pare them and mash them with a rolling-pin; then dredge in flour enough to form a dough; roll it out to about the thickness of pie crust, and make up the dumplings by putting an apple pared, cored and quartered to each. Boil them one hour.

BAKED APPLE PUDDING.—Boil one pound and a half of good apples with a gill of water, and half a pound of brown sugar, till reduced to a smooth pulp; stir in one gill of sweet cream, a table spoonful of flour or fine bread crumbs; flavor with a little lemon juice, or grated lemon, and bake forty minutes.

RICE CUSTARD.—Boil two ounces of ground rice in a pint and a half of new milk; add four ounces of sugar, an ounce of grated cocoa-nut, four ounces of sweet cream, and bake in a slow oven.